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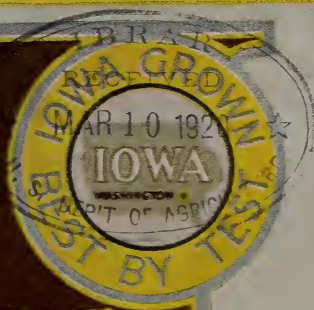
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FIELD GARDEN and FLOWER SEEDS

ANNUAL SEED
CATALOG

1920







**BRUNS
SEED
CO.**

WASHINGTON
IOWA

John





THE thought of joining hands with nature and making things grow brings much pleasure. Assist nature to produce her best by sowing only carefully grown and selected seed.

We are ready to serve you with the choicest of seed that nature has produced.

Awarded seventeen medals and two honorable mentions at the *Panama-Pacific Exposition, San Francisco, 1915.*

Awarded first and sweepstakes over all individual collective exhibits at *Iowa State Fair, 1916.*

Awarded first prize on the best bushel of Reid's Yellow Dent corn from Southern Iowa at the *Iowa State Corn Show, Ames, Iowa, 1917.*

These awards and blue ribbons awarded us at County, State and National Seed and Grain Shows speak for themselves. Furthermore the everincreasing demand for our carefully grown seed stocks is positive proof that they are very desirable.



A Personal Word



It is a pleasure to hand you my 1920 seed catalog, and as many of my customers have made inquiries as to why they did not receive our catalog last season, I will take this opportunity to explain the reason.

During April, 1918, just as we were at the rush point of the seed selling season, I was called into the service of our country and with the enlisting of other members of the firm for service, it took our complete executive force and the business was necessarily discontinued.

After spending one year in Uncle Sam's army, mostly in overseas duty on four different fronts, some of which were in quite strenuous action, we were discharged in April 1919 and at once resumed our civil life in the seed business, but too late to prepare and issue a catalog for the 1919 season. It requires at least three or four months to prepare the copy and get the first catalog from the press, and for that reason we had to be content to serve only our local customers during the 1919 season.

If some of our customers not receiving a catalog got the impression that we were out of the business, we hope the appearance of this catalog will correct that wrong impression, as the seed business is our life work and we are in it from now on stronger than ever. We have enlarged our business greatly through

the purchase of the business of the Mills Seed Company, of Washington, Iowa, as fully explained on the next page, and are prepared to handle a larger volume of business and do it with more promptness and dispatch than ever before.

It has been our effort to make this catalog not only interesting, but instructive, and you cannot help but learn considerable if you read it from cover to cover. Everything is represented just as the camera takes it, the illustrations being photo reproductions and not the artist drawn pictures that you find in many other seed catalogs. Through the purchase of the Mills Seed Company we will issue one hundred thousand more catalogs this season than heretofore and if you have a friend or two that you believe would like a copy of this catalog, please send us their name.

In the reconstruction of our country all of us can do our part, that in the aggregate will count so much if everyone will be a producer of something of value. No better advice can be given than to make your ground produce to its greatest capacity, with no fear of over-production as that cannot occur for several years to come. This catalog represents varieties that you can rely upon for productiveness, as every variety we grow has been fully tested by us, with many other kinds and we do not offer anything in farm, garden or even flower seed that shows only the minimum of production.

Remember that the cheaper grades of seed are not the ones to buy, for as a rule the plant that furnishes the greatest amount of seed is less productive in food value. From whatever source you get your seed, demand the best as they are the most profitable.

Whatever we offer you in seed of any kind is the result of careful selection, the best improved methods of harvesting, cleaning and testing, and will always bring you good results.

We are certain that our service department will never be found lacking when it comes to handling your order in a prompt and business-like manner.

Thanking you all for your generous patronage in the past and with best wishes for a very prosperous year, I am,

Sincerely yours,

A. R. BRUNS.

Two Large Iowa Seed Houses United



OUR NEW LOCATION

Thousands of former patrons of the MILLS SEED COMPANY, of WASHINGTON, IOWA, will not receive a catalog in the name of that company hereafter, as we, the BRUNS SEED COMPANY, formerly of SIGOURNEY, IOWA, purchased the large plant and entire business of the Mills Seed Company and took possession on May 1, 1919.

The Mills Seed Company for years enjoyed a large patronage, issuing some seasons as many as half a million catalogs to the names on its mailing list, and in our assuming that business we expect to reach most of its former patrons.

In taking possession of that business we have retained the heads of departments that had served with that company for many years, as well as many well-trained assistants. In addition we have added improved facilities for the better handling and recleaning of farm and field seed, and now have an institution that we are proud to exhibit.

The bringing together of these two important Iowa seed houses unites the patrons of the Bruns Seed Company with those of the Mills Seed Company in dealing with an institution better qualified to serve you than either of these companies had been separately, while your orders will be handled by the same competent but combined force that has handled them heretofore.

Our main office will be at Washington, Iowa, but we will retain our buildings at Sigourney, Iowa, and on our farm near that place, carrying a complete stock both at Washington and Sigourney. In some cases, where we can serve customers more promptly the order might be filled from the Sigourney Seed House, but all orders and mail matter should be addressed to BRUNS SEED COMPANY, WASHINGTON, IOWA.

Washington is more progressive than any Iowa town of its size and many larger, and holds the much-advertised and undisputed title of "The Cleanest City in Iowa." As a distributing point our location is ideal, having three main railroads passing through. We ship in all directions and express shipments may go forward on short notice, while the land surrounding Washington, being a level prairie, deep black loam, known as the "Garden Spot of Iowa" is ideal for producing many of the "WASHINGTON QUALITY" seeds that we grow for your use.

Address all orders and mail matter to Bruns Seed Company, Washington, Iowa.



Our Seed House on the farm is one of our most important buildings, as it is especially well equipped for the sorting, grading and drying of seed corn and other field seed as it comes from the field. Page 46 shows a view of corn racks as they are arranged in this building.



Our Seed House at Sigourney, Iowa, is especially well equipped for the cleaning and preparing of field seed for shipping to our customers. Many orders are filled from this building, especially large field seed orders. Some mail orders are sent from this building, but most of the garden and flower seed orders are filled from the large building at Washington.

THE VALUE OF GOOD SEED

Seed is one of the few commodities sold, that do not as a rule show any outward indication of their real quality. Their quality is based upon the reputation of the seedhouse or person that produces them. Considering the farmer's large investment of capital in land, stock and equipment, the call today is greater than ever before for seeds of known quality, that their land may be made to produce a little more than it has heretofore.

Our large farm near Sigourney, Iowa, is the foundation of our success in the field seed business, as our growing of various seed crops has demonstrated to us beyond a doubt the value of certain varieties of field seed over other varieties, with the result that we know the farm seed we sell as the artist knows the picture he paints.

The Bruns Seed Company started on the farm and are still on the farm. Improvements have been added from time to time and we now have farm buildings especially equipped for the recleaning and equipping of field seed to bring them up to the highest possible state of perfection in quality as to purity and germination.

When you receive farm seed from the Bruns Seed Company you can rest assured that they have been produced by experienced and conscientious growers, producers that are in full sympathy with the needs and requirements of the customers they serve.

With garden seed, the situation is different, as a full line of garden seed cannot be grown in any one



The Highest Scoring Individual Collective Farm Exhibit at the Iowa State Fair, 1916. Grown On Our Sunny River-View Farm.

We know the seeds we sell as the artist knows the picture he paints.

section of the country. Certain sections grow certain vegetable seed and we have to know the pick of the best growers, as some are scientific and careful, while some, in our estimation, are careless, just as there are good and indifferent breeders of live stock. While we may grow a small stock of some vegetable and flower seeds, we are certain that our bulk of garden and flower seeds come from the best growers in the country. We are prepared to give you the best there is in this seed and any garden or flower seed offered at less price than we ask, has certainly been slighted in some stage of its production, which will certainly show up in its reproduction.

Our Garden and Flower seed are all put up in lithographed colored packets, as you see here represented. They are the best to be had and worthy of being presented to you in an attractive manner. Each packet represents in color the variety you buy seed of and this is of value to you in arranging your planting schemes. Culture directions are very complete on the backs of these packets and if you have never planted "WASHINGTON QUALITY" garden and flower seed, it is high time you should get acquainted with their value.



All Garden and Flower Seed Put Up in Lithographed Colored Packets.

General Information and Suggestions to Customers.

Prices. On flower seeds the price follows the description of each variety on the flower seed pages, from 71 to 78. For prices on all other goods listed in this catalog see blue pages at center of book. Prices on some field seeds are subject to fluctuations and therefore we cannot guarantee prices as listed to hold good throughout the season. On large orders write for special prices.

What We Deliver Postpaid. All garden and flower seeds are sent postpaid by us at catalog prices, for quantities up to and including one-pound lots, or larger quantities bought at one-pound lot prices. If you want any quantity to come by parcel post, which we would not deliver at catalog prices, add for postage at the zone rate, which you can obtain from your postmaster, not forgetting that you have to figure on an extra pound for packing, as for instance 10 pounds of seed would have to go as a 11-pound package.

What We Do Not Deliver. All field seeds are sent by freight or express in accordance with your instructions, customer to pay transportation, which includes grains, grasses, corn, peas and beans, or any seed not quoted in pound lots.

How to Send Money. It is safest to send a Money Order, Draft or Registered Letter, or we will accept your personal check if your bank account is sufficient to cover it. We accept stamps on small orders if they reach us in good condition. Do not send silver loose in the envelope, as it should be wrapped or registered.

Terms. All orders must be accompanied by cash, as we do not open accounts with customers in the mail order business. All prices are net and not subject to discount unless by special agreement with customer.

Special Quotations. If you contemplate buying considerable seed we will be pleased to make special quotations promptly upon receipt of your inquiry. Mark your envelope quotation department.

Our Guarantee. We guarantee all seeds to be of high germinating power, but do not guarantee crops, and if not accepted on this condition they are at once to be returned and your money will be refunded. We give you the privilege of ten days for examination or test, which is as fair as anyone can give. We cannot guarantee the crop—and no one can—as there are too many things essential to a good crop over which we have no control.

Free Samples. If you are in the market for clovers, grasses, seed corn or other field seeds we will gladly send samples upon request without charge. All samples are true to the stock from which they are taken.

PARCEL POST INFORMATION

In some cases you might have your seed come by parcel post at less cost than by express. Packages weighing up to 70 lbs. can be sent to the 1st, 2d and 3d zones, up to 300 miles from the sender, and 50 lbs. is the weight limit to the farther zones. Remember, that to the net weight of any amount must be allowed another pound to allow for packing.

UNITED STATES PARCEL POST RATES Within the U. S. and Possessions

		First Pound or Fraction	Each Additional Pound or Fraction
Local Rate Washington, Iowa—		5c	½c
1st Zone within	50 miles of Washington.....	5c	1c
2d Zone within	50 to 150 miles of Washington.....	5c	1c
3d Zone within	150 to 300 miles of Washington.....	6c	2c
4th Zone within	300 to 600 miles of Washington.....	7c	4c
5th Zone within	600 to 1000 miles of Washington.....	8c	6c
6th Zone within	1000 to 1400 miles of Washington.....	9c	8c
7th Zone within	1400 to 1800 miles of Washington.....	11c	10c
8th Zone over	1800 miles of Washington.....	12c	12c

Keep a Copy of Your Order. It is always best for you to keep a copy of the order you send us, as in ordering a number of articles it is difficult to remember correctly what is ordered. We have before now received complaints of the shortage of certain goods that were never ordered, but if you keep a copy, it will be of value to yourself as well as to us.

Correspondence. In writing us at the same time when sending an order, please write your letter on a separate sheet of paper, so that it will have our prompt attention and not delay the handling of your order through the proper channels.

Be Sure to Give Your Name and Address. This might be considered unnecessary advice, but if you could see the number of letters and actual orders received without name and address given, you would be astonished. Many times we can take the name from the check or money order, but if its absence is not noticed before the check or draft is separated from the order blank, we may have a hard time locating you. We know it is not impossible to omit the name, as we have been guilty of doing this thing ourselves, therefore let us all be careful and try to save trouble.

Lend Your Catalogue to Your Friends. We do not like to have idle catalogues lying around, therefore lend it to your friends, as the chances are they will want some of the quality goods it offers. They claim that it takes a pound of fuel to make a pound of paper, so that by lending your catalogue you will be conserving the supply of paper and save fuel, aside from doing a good turn to a friend, all of which will be sincerely appreciated by us.

See price list on blue pages following page 40.

Condensed Instructions on Gardening

The primary needs for a successful garden on a small scale are the same for gardening on a large scale. On smaller gardens intensive culture can better be employed, so that every foot of ground can produce not only one, but two, and some spaces even three crops in a season. Factors such as location and just the proper exposure cannot always receive consideration as gardening on small plots leaves little room for choice in this. It is well however, to take advantage of every favorable condition possible. It is known that frost is less liable to injure vegetable plants on high ground than planted on low. Crops will mature more readily on ground with a Southern exposure. That the garden should be fairly level, but well drained and that a warm sandy loam will produce earlier crops than a heavy soil that retains more water, but less heat. As the soil is a storehouse of plant food it is important that it be of open texture, so that the little rootlets may not be hampered in their progress of search for sustenance. Cultivation is highly important, as stirring and loosening the soil preserves moisture and kills weeds that draw so much moisture and plant food at the expense of the vegetable plants, less sturdy in character, and striving for an existence.

Preparing The Seed Bed. Deep plowing, careful harrowing and other means of fining the seed bed is the foundation for a good garden. The soil must be friable and free from clods, as clods lock up considerable plant food. As the stockiness and growth of the plants depend upon their small hairy, fibrous feeding roots having access to the plant food stored up for them, it is important that the soil be worked up fine and mellow. Consider the whole garden as a seed bed and work accordingly.

Fertilizers. After the soil has been gotten in good condition, some sort of fertilizer is advisable. Barnyard or stable manure supplies both food and humus and is undoubtedly the best, applying 20 or 30 tons to the acre, equivalent to about 500 pounds to each 20 by 20 foot square, distributed evenly and later worked in with a hoe or rake. To start the plants in the spring apply nitrate of soda, 100 pounds to the acre, or one pound to each 20 foot square, and the best way to use this nitrate in small gardens is to dissolve a teaspoonful in a gallon of water and use the solution for sprinkling young plants. It will not pay to broadcast sheep manure, but small quantities can be applied in the drills when seed is being sown and later applications can be made by working it in around the plants with a trowel. Bone meal is also a good fertilizer for all plants.

Starting Plants. Not having a hotbed or greenhouse, plants may be started in boxes and grown in the house in a sunny window. Boxes 3 or 4 inches deep, one foot wide and two feet long, with about one inch of cinders or gravel in the bottom and filled nearly full with rich garden soil, do very well. The soil should be pressed down firmly and rows made about 2 inches apart crosswise of the box and one-fourth to one-half inch deep. The seed should be distributed in this row at 8 or 10 to the inch, covered carefully and after being watered set in a sunny window. Give moisture enough to germinate the seed, but not water so much that water runs through the box. A piece of glass used to cover the box will conserve the moisture and hasten growth, the glass tilted at times to give sufficient air to the plants. When the plants are a little over one inch high, thin them to 1 inch apart in the row, so they will develop strong stocky plants and if desired the plants thinned out can be set in other boxes. When the weather becomes mild the plants should be set out of doors in order to have the plants "harden off" in preparation to setting them in the open. In these boxes you can start tomato, cauliflower, cabbage, Brussels sprouts, peppers, egg plant, lettuce and others.

Transplanting to Open Ground. After plants grown in boxes are hardened off and ready to set in the open and are too tall, trim away about half of the larger leaves. Several hours before transplanting they should be watered thoroughly so that the soil will be moist enough to stick to the roots in balls of considerable bulk. If the places for setting the plants is at all dry, pour water into the holes and after set, firm the soil about the plants with the hands, after which rake the surface carefully about the plants.

Planting In The Open. Vegetables may be divided into two classes "cold temperature" and "warm temperature." When peach and plum trees are in blossom it is time to sow lettuce, spinach, kale, endive, radish, parsley, beets, turnips, cabbage, cauliflower, Brussels sprouts, carrots, onions and the smooth seeded peas, the wrinkled seeded peas not until later as they are liable to rot in the cold damp ground. When apple trees bloom it is time to sow the "warm temperature" vegetables such as cucumbers, beans, sweet corn, okra, pumpkin, squash. Cabbage, lettuce, potatoes, radish, smooth seeded peas, onion seed, and sets, parsnips, salsify, beets. Such salad plants as kale, spinach, mustard, etc., will stand light frosts.

Depth of Planting and Spacing. Culture directions are given so fully on our packets for each vegetable that we will not attempt to cover those points on this page. As a rule seed should be planted more shallow on clay soil than on sandy soil. Unusual depth may be given to seed planting by planting at the bottom of furrows and covering as usual and as the plants develop bring the earth about the plants as they grow. This method is good for late planting and fortifies the plants against drought.

Succession and Rotation. The space given to vegetables of early maturity can be used for the planting of other vegetables. The earliest to mature is radish and you can count on using that space again in from 5 to 7 weeks, even if they are not all consumed. As they are removed, lettuce, cabbage, cauliflower, Brussels sprouts or others may be set in their place. In a similar way onion set space may be later occupied by tomato plants. Various combinations may be worked out in this way between the earliest maturing vegetables and plants to be set out from the starting boxes or second sowing of seeds. The gardener should not plant all of his radish, spinach or lettuce at once, but plant at intervals of about every two weeks to prolong the supply. Succession is very satisfactory with beets, peas, beans and especially sweet corn. In planting for rotation, the succeeding vegetable should be as different in type and character of growth as possible. This is to guard against insect attacks and insure the succeeding plants in finding its necessary plant food.

With prices of food stuffs, clothing, shoes and all other necessities still higher in price than last year, the 1920 Garden should again be planted more for the profit it is sure to return, than for the pleasure and recreation it affords.

See prices at center of book,

ASPARAGUS

A VALUED EARLY VEGETABLE EASY TO GROW.

It requires no science to establish a permanent Asparagus bed, after which you have a continuous supply. Established in good soils, beds have produced for twenty years in succession.

We grow the four best varieties of asparagus, which are **Bonvallet's Giant**, **Columbian Mammoth White**, **Palmetto** and **Conover's Colossal**.

Regarding the quality of these kinds we can say they are all tender and of fine flavor. We especially recommend the **Bonvallet's Giant** for the reason that it will produce shoots one year ahead of the other kinds. It is a large white shoot, fine for use up to $\frac{5}{8}$ inch in diameter. **Columbian Mammoth White** is also a large shoot, which comes a little later than **Bonvallet's** and **Conover's Colossal** is a large green colored shoot of excellent quality. **Palmetto** is a smaller growing kind of a light green color very fine in flavor and quality. Any of these are good and we would recommend two or more kinds in starting a bed.

Roots are set 8 to 10 inches apart in the rows that are about 3 feet apart. One ounce of seed will sow about 40 feet of row. We supply first-class asparagus roots.

Asparagus Roots. First-class roots of above varieties. See prices at center of catalog.

BEANS

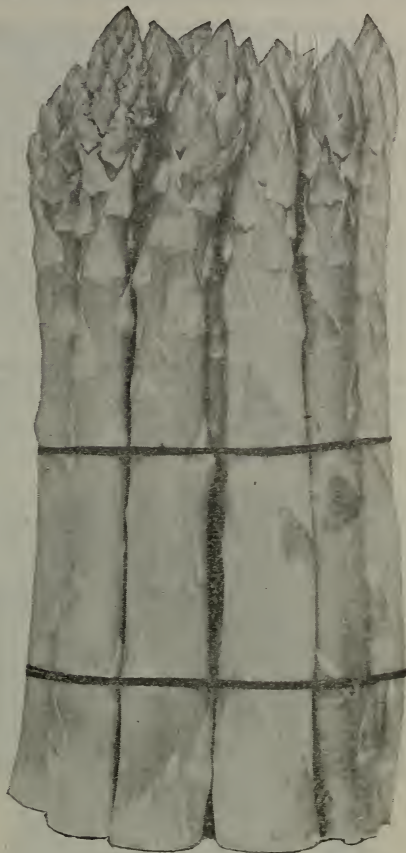
We sell beans and peas by the pound instead of by measure.

One pound which equals some more than one pint, will sow 50 feet of row.

Beans have done their bit in giving a staple food to compete with food articles very high in price. They have served the rich and poor with equal good, and our best advice is—Grow **Plenty of Beans**.



Bruns All Seasons Green Pod.



Bonvallet's Giant.

Bush Beans

GREEN POD SORTS.

For table use the green pods give a little more richness in flavor than do the wax or yellow pods. Also with a few exceptions the green pods are more productive and possibly less sensitive to soil and climatic conditions. On the other hand the yellow pods are rich in color and more fascinating to grow and all we list are good in flavor.

Remember that beans in your garden give a wholesome food in a green and dry state from early summer to fall and then through the winter. **Grow Your Own Shell Beans** to save money on your grocery bill and have a better quality than usually sold through the stores.

Boys and Girls can find no better paying crop than shell beans which readily sell at the stores, at a price that will pay you well for the labor.

For the first and best quality in green pods, **Bruns All Seasons Green Pod** is entitled to first place. It has been a wonderful success with us among our customers, for the following reasons: Is entirely stringless even to maturity, hardy and extra early plantings can be made, produces pods early of the richest in flavor of any Green Pod. Bears from early until stopped by frost in the fall if pickings are continued and successfully grown in all parts of the country.

Bruns All Seasons Green Pod is in short everything to be desired in an all purpose green pod bean. Whether planted as the first early or later it makes good by starting to produce as readily as from spring plantings. Pods are round and quite straight, of a rich dark green color, tender in quality and stringless at all stages with unusually rich flavor. Pods are 5 to 6 inches long and an abundance produced on each plant.

The very earliest and the most hardy of all green pods is **Improved Early Red Valentine**. It is very reliable where seasons are short as it will germinate in cold ground where others might be a failure. The pods are fleshy, round and somewhat curved and as it is of such a hardy nature, the pods should be used when young. A larger bean of this same nature is **Black Valentine** with longer and straighter pods of fine appearance. It is of fine quality when young and quite a favorite for early and later plantings.

The well known **Burpee's Stringless Green Pod** we highly recommend and have a fine stock of it. It is of fine quality, a heavy cropper, stringless and bears a long season. Pods are very meaty and they give universal satisfaction.

If you like a flat podded green bean, **Long Yellow Six Weeks** is the best. The seed is



Burpee's Stringless Green Pod.

light yellow in color. It is quite hardy and should be used in its early stage. Its earliness, hardness and fine appearance are its strong points.

We think the best for late planting is **Refugee** or 1000 to 1 especially in the South. Is a heavy cropper and successful when planted early. Its long, light green, slender pods are very attractive and, of the best flavor.

Bush Green Pods for Shelling. The old fashioned baking bean **Red Kidney** is always successfully grown as a winter shell bean and highly valuable for that purpose, as it gives a winter bean of fine quality for baking. The beans are red in color.

Improved Tree Bean has a wonderfully up-right growth with very stiff branches, grows 20 inches high and fine for field culture. Shells out pure white beans some what larger than navy beans. The plant is a heavy bearer and easy to pick from and we highly recommend it.

Our Choice Navy Beans Give Great Satisfaction and every garden should have them this season. It is the small green pod that has shelled out 15 bushels to the acre. Every farm should have a patch of them and the younger generation on the farm can find it profitable to grow a patch for selling to the stores. They are the popular baking and soup bean.



Long Yellow Six Weeks.

Wax or Yellow Pod Bush Beans

For real pleasure and satisfaction in growing wax beans, we must place **Bruns Rust Proof Wax** at the head of the list. It is stringless and the best flavored of the wax varieties. Pods are always brittle, even to advanced growth, very meaty and produces large crops in every section.



Refugee—1000 to 1.

It is not subject to rust or other bean diseases and the bush is the most robust growing of any tender wax variety, holding the pods well off the ground. The pods have a rich golden-yellow color and is the ideal home garden wax bean.

Improved Golden Wax is one of our old favorites, especially on account of its rich buttery flavor. It is a fine standard variety of fine quality, not as long a pod as some other kinds, but is always to be recommended for the home garden and market. See illustration of this valuable variety on back cover.

If you like a flat podded wax bean, **Wardwell's Kidney Wax** is absolutely the best. Absolutely stringless, the pods breaking apart with a snap when quite old. Is early, producing pods for the table in about 7 weeks from sowing and its long flat tender beautiful pods are one of the best for pickling. For selling on the market it will take first place over many other kinds.

To those having trouble with



Bruns Rust Proof Wax

entire season until fall if picked as they appear.

The old reliable **Lazy Wife Pole Bean** is in great demand for early table use and to grow for shelling. The beans are pure white when matured, almost round in form, somewhat oblong and of fine quality for baking. The plants are strong growing and always make an abundant crop. A fine Green Pod Pole Bean.

Currie's Rust Proof Wax

wax beans rusting we would advise **Currie's Rust Proof Wax**. It is a good wax bean, tender in its early stage and will be free from rust, even when others are affected.

Davis White Wax serves a double purpose. It is of good quality as a snap bean for early use and as the bean is pure white they are fine for shelling for winter use. It is grown in fields largely for that purpose and in this section planted about June 15th for fall shelling. You will find it of fine quality, we believe the best to be had for a shell bean.

Pole Beans

In growing Pole Beans the extra care given to furnishing good supports will be repaid by the increase in yield.

That old fashioned pole bean **Kentucky Wonder** or **Old Homestead** is still in the lead as the best in quality and heaviest bearing of the green podded pole beans. The plant is a very apt climber successful under very ordinary conditions and continue to bear pods through the



Davis White Wax.

Pole Beans--Continued



Bruns Bush Lima.

Pole Lima Beans

King of The Garden Pole Lima is the one pole lima bean that we select as a preference over all other pole limas. The beans are very large with five to six to the pod, the pods shelling easy as the beans are quite thick and fill out the pods in good shape. Three good plants are left to a hill and this makes a stand.

Bush Lima Beans

The smallest type of bush lima is the **Henderson Bush Lima** which is always very productive, so much so that you get more in net weight of seed than on some of the larger seeded kinds. The beans may be shelled out green for cooking and they also make fine shelling limas for winter use. The plants can be planted quite close together.

Of all the large seeded bush limas we cannot give you better than the **Bruns Bush Lima**. They grow very erect, averaging two feet in height with stiff branches producing pods in great confusion with four and five large seed to the pod, quite thick and exceedingly rich in flavor of an attractive light green color. **Bruns Bush Lima** is successful in all sections, which is a great point in its favor and are sure you will find it to meet your full expectations. See cut above.

Burpee's Improved Bush Lima is having great success in many sections. It grows to a large size, about 30 inches high and 24 inches in diameter. The beans are of very fine quality. We have a fine stock of this seed.

Speckled Cut Short the well known corn hill bean should be grown on every farm. The seed is speckled but a fine shelling bean for planting among the corn. The pods are long, thick and very meaty, dark green in color and one of the very easiest to grow.

The Kentucky Wonder Wax Pole has been developed within recent years and is the same as Kentucky Wonder Green Pod, except in color. We have always had a brisk demand for this pole bean and are sure we can safely recommend it to all.

Another good wax pole bean is **Golden Cluster Wax Pole** which produces a very large, meaty pod 6 inches and more in length, growing in clusters and many produced on a single plant. Its quality is fine and a very attractive variety for the home garden.



King of The Garden Pole Lima

Table Beets

One ounce of seed sows 50 feet of drill, 4 to 6 lbs., per acre.

Beets are so easy to grow and make such a good showing in the early garden that they are often neglected, with the result of ill-shaped and undeveloped roots. If they are thinned and have the care they deserve, the results are surprising.

We can offer you the best bunching beet to be had in the **Bruns Early Market Beet** a variety improved by long and careful selection with every good quality desired. It is ready for market in 40 days from sowing seed, producing beets uniform in size and shape, surface smooth and free from stringy rootlets. Has attractive red color clear through. It is generally bunched when from 1½ to 2½ inches in diameter, but perfectly good for table use up to 3 inches in diameter. A good keeper, fine grained, very sweet in flavor and in every respect a high quality beet. See cut opposite, also on back cover.

Another good bunching beet of the flattened type is **Early Egyptian**, its color a fine dark red clear through and a favorite for pickling whole when young or slicing when larger. It is sweet and tender in quality.

Two very fine dark red beets are **Edmand's Early Blood Turnip** and **Detroit Dark Red**. Edmand's is flattened in form and **Detroit Dark Red** is rounded in form, slightly pointed to the tap-root. For a very dark red beet they are very desirable.

For a bright red, extremely early beet, **Eclipse** is in great demand. Its inside color a bright red, zoned with rings of a lighter shade. The leaves of this beet are very tender and much used for greens.

Improved Long Red is quite a favorite as it is a

Bruns Early Market Beet

fine quality of beet that allows close planting. It grows 6 and 7 inches long, rather dark in color and of very fine sweet flavor. Its shape requires a longer growing season, but is a fine kind for slicing for canning purposes.

The most important main crop variety is **Crimson Globe** also a fine table beet, retaining good quality up to a larger size than any other kind. A beautiful crimson in color, distinct from others, smooth in form and free from stringy rootlets.

Bruns Early Blood Turnip is a special stock that we take pride in. Is very early flattened in form, always the same in rather dark red color, fine grained, very sweet and grow very uniform in size and shape. We are sure you will find it the most perfect turnip-shape producing form of any **Early Blood Turnip**.

See illustration next page.



Early Egyptian

Swiss Chard or Spinach Beet "Lucullus". Does not make roots like the regular garden beet, but is grown for its thick broad leaves and stalk that resemble Rhubarb, except that its leaves are very crinkled. Its stalks are delicious when cooked and served in the same manner as Asparagus and the extra large leaves of thick texture are cooked as greens and they have a very fine flavor. If you have never tried this vegetable it will pay you to do so. See page 12.



Edmand's Blood Turnip.

Mangels or Stock Beets

About 1 ounce to 100 ft. of row, 5 to 6 lbs. per acre.

The feeding value of Mangels and Sugar Beets is always demonstrated in the improved health and condition of the stock. No farm should miss growing a crop of this inexpensive and highly valuable stock food.

For the small amount of seed cost per acre and labor, mangels make enormous returns. Plow deep in May or June and plant six mangel seed to the foot, in two or three foot rows. Later on thin to stand about 10 inches and when a light frost has occurred, lift and store in pits or a cellar.

Mammoth Long Red Mangel often grows from 24 to 30 inches in length, weighing from 25 to 30 pounds and grown on good rich soil it is enormously productive and a reliable keeper. It is easily harvested as it grows half out of the ground, its color a deep red.

Dairymen usually grow the **Golden Tankard Mangel** as it is richer than others in milk producing qualities. Its flesh is a rich deep yellow color with roots very broad, tapering quickly at the bottom with a very small tap root, especially recommended for milch cows and sheep feeding.

Half Sugar Mangel is a development uniting the mammoth mangel and the sugar beet, giving large size and rich feeding value. Its shape is that of a broad thick wedge about one foot in length with the upper portion a soft pink in color and the lower portion white. Is easy to harvest and much in demand.



Bruns Early Blood Turnip
(Description page 11.)

Danish Sludstrup is an imported variety and very valuable as it is claimed it contains a larger percentage of nutriment than any other sort. Similar in shape to the Mammoth Long Red with the exception that it is shorter and thicker through the center. Its color is a reddish-yellow and is a distinct type. A goodly portion of it grows above the ground and is easily pulled.

Be sure and grow some kind of mangel this season as any you may select will bring you immense returns.

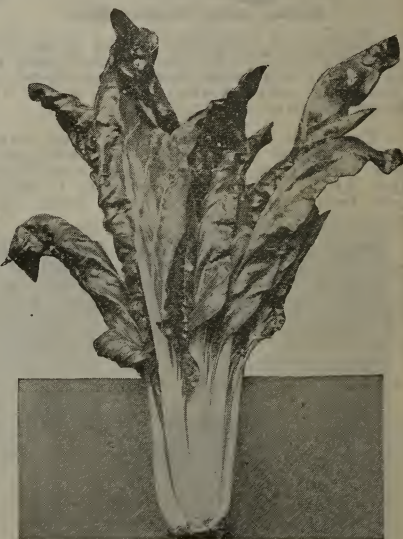
Sugar Beets

Grow Sugar Beets the same as Mangels except that only six or eight inches of space is given between the beets in the row.

The sugar beet grown for the manufacture of sugar and also for stock feedings is somewhat smaller than the mangel with yellowish-white color.

The sugar beet grown mostly for sugar production is **Vilmorin's Improved Sugar**, which contains the largest percentage of sugar and on good rich soil it will yield from 12 to 16 tons per acre.

Klein Wanzleben is a little larger than Vilmorin's but is claimed to contain about the same percentage of sugar, but grows more of its root below the surface and its green leaves are larger and more spreading.



Swiss Chard or Spinach Beet
Description, page 11



Mammoth Long Red Mangel



Golden Beauty Carrot

CELERY

It is not as difficult to grow your celery as some imagine it to be. Celery can be grown in ordinary garden soil unless it is thin and poor ground. As a rule people do not know how good celery is until they grow it themselves. No vegetable toughens as quickly as celery after taking from the ground and you cannot imagine the difference between celery bought at the store and that taken from your own garden.

Our packets give complete culture directions for growing celery.

Among the varieties of celery there are three varieties stand out as the best and we confine our list to those, which are Golden Self Blanching, White Plume and Giant Pascal.

Of these three, Golden Self Blanching is our favorite as it is early, easy to grow, of dwarf habit and above all is the most crisp, tender in quality and finest in nutty flavor, while it is the most compact and therefore naturally blanches out the most attractive color and tender quality. It has a solid heart of beautiful stalks and leaves.

Perfected White Plume is the best of the white varieties and largely grown by market gardeners. It is really the earliest of any and the inner leaves and stalks have a pure white color, very tender and crisp and when well grown is of fine flavor. The stalks are longer than the Golden Self Blanching and cannot be said to be as good a keeper.

The one celery best of all for winter use is Giant Pascal recommended for the home garden or nearby markets. It is too tender for shipping but a fine keeper when banked in the cellar for winter use. The stalk is very large, but very crisp, entirely stringless and has a fine nutty flavor.

CARROTS

One ounce of seed will sow 125 feet of row; 4 or 5 lbs. will sow an acre.

Carrots are rich in food value, containing a large percentage of sugar and starch and every garden should grow at least a row of them. When too large for table use they make excellent stock food.

All the table carrots we list are good in quality and therefore it need only be a matter of shape and size you prefer in making your selection. We have one however, that we take a little extra pride in and that is **Golden Beauty** which we have developed to be a little more tender in quality. It is the most popular among our customers.

Our best to recommend, for table use is **Golden Beauty**, which is a half slender sort. **Chantenay** is a fine variety with a root a trifle more slender than **Golden Beauty**. The short stump rooted sorts are very popular, **Oxheart** and **Scarlet Horn** being of about the same shape, **Oxheart** the little larger of the two. In the longer type we have **Danvers Half Long** a very fine variety which is the longest of the table varieties.

In the larger growing kinds they are better suited for stock carrots, such as **Improved Long Orange** and **Large White Belgian**. The first named is a very good quality carrot but we recommend it for stock only, and the **Large White Belgian** is purely a stock carrot, of great value for that purpose.

GROW CARROTS FOR WINTER STOCK FEEDING

Carrots are easily kept in storage for winter feeding and fed to milch cows their richness will impart a richer color to milk and butter during the winter months.

JAPANESE CARROT

Among a few Japanese and Chinese novelty vegetable seeds we have imported, we have a Japanese carrot and its name is **Kintoki**, and grows about 10 inches long and 2 inches thick at the shoulder, tapering gradually. It is tender, and of excellent flavor and its color is the large part of its real novelty, being deep scarlet in color. It is well worth your while to grow a few of these useful novelties.

Perfected
White
PlumeGolden
Self
BlanchingGiant
Pascal

Cabbage—Early

One ounce of seed will sow 300 feet of drill, four ounces of seed will grow enough plants to set an acre.



Brunns Select Early Jersey Wakefield.

There is nothing more reliable for early crop than **Early Jersey Wakefield** and **Brunns Select Early Jersey Wakefield**, not only has the earliness of this renowned variety, but shows many points of advantage over the ordinary seed stock of this variety sold at large. It is the product of a careful selection for a long time past and produces more uniform shape and size, more tightly folded heads with a trifle thicker leaves, which stand drought better. The heads weigh from 7 to 8 pounds with very little to lose in trimming as there are few surplus outer leaves. Our special stock of this cabbage is becoming known as the high mark in Early Jersey Wakefield.

We specialize on another early cabbage, **Brunns Early Copenhagen Market**, which is ready for use in about 100 days from starting the plants. It is a round headed type of from 8 to 10 pounds, famous for its compactness, fine grain and superb quality. The best of the large sorts and must be seen to be appreciated.

Glory of Enkhuisen is a round-headed type of fine quality, solid, in its formation and of superb flavor. They are not as large as Copenhagen, but very white and tender.

Early Winningstadt, the old favorite sharp-pointed type, is an important early kind as it is very hardy. It is fine grained and good in every particular, especially for kraut making. It is called a good second early sort.

Second Early Sorts

Brunns Early Flat Dutch we claim as the best second early, also that we have better stock than the ordinary run of seed. It is very solid and a sure header, standing long without bursting up to a weight of 9 or 10 pounds. Is very white inside and can be planted quite close, as it has few outer leaves.

Charleston Wakefield grows 2 or 3 pounds heavier than the Early Jersey Wakefield and is about 10 days later, otherwise it is very similar to the Early Jersey Wakefield. It is a fine shipper and popular with the southern growers for shipping North.

Early Summer Cabbage is handsome in appearance, having a peculiar bluish tinge, and will stand in the field a long time with-



Brunns Copenhagen Market.

out bursting. It is flat, very solid, of fine quality and a fine keeper.

Allhead Early, claimed by some as one of the earliest, requires about 120 days from planting to be ready for use. It is always sure to head and has a short stem and requires very little trimming before using. It is of fine quality and a great favorite as a medium early.

Succession is an important cabbage, coming between Early Flat Head and Late Flat Dutch. The heads are large and flattened, very solid and of an unusually attractive light green color. It is a fine keeper.



Glory of Enkhuisen,

Late Cabbage

We believe you will have better success with late cabbage by sowing the seed where the cabbage is to grow and then thinning out to the desired stand. Sow the seed about June 1st.

Bruns Premium Late Flat Dutch has first place with us among late cabbages, as it can be sown quite a little later than June 1st and still make good. It never fails in good quality, good yield and adapts itself over a wide range of country. It has a short stem and few useless outer leaves and when cut shows a pure white color, is fine grained and we are sure the best in quality of late cabbage.

In many sections the **Danish Ballhead** is the most important late cabbage. It is without question the best keeping variety and a fine shipper. It is not as large as the Premium Late Flat Dutch, but is extra fine in grain and quality. It is the most hardy of any cabbage and will stand storage a long time without injury. We are always pleased to recommend the Danish Ballhead.



Surehead.

Autumn King or World Beater has been a great favorite among our customers, many growing it in preference to other kinds. Its color is a dark bluish green, very attractive on the market, with large heads flat in form but rounded at the top. It is probably the largest and heaviest of any variety, often weighing from 18 to 20 pounds and very fine grained for so large a cabbage. It is a profitable field crop, but requires strong soil for the best results. If you figure on growing a large field of cabbage you can make no mistake on selecting Autumn King or World Beater.

A reliable flat Dutch type is **Surehead**, which runs very uniform in shape, but varies in weight from 10 to 15 pounds. It is always sure to head and is about 10 days later than Danish Ballhead and is noted for its drought-resisting qualities. As it is one of the best of keepers it is grown extensively for winter use.

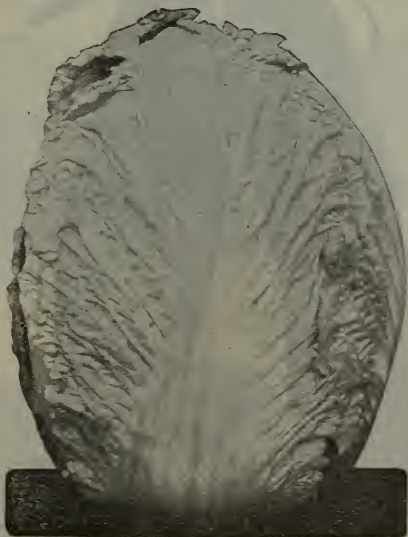


Bruns Premium Late Flat Dutch.

Mammoth Rock Red is the best of the large red cabbages, which is round, very solid and weighing from 10 to 12 pounds. It is an attractive red in color and of fine quality, very hardy and always sure to head.

Chinese Cabbage is something you should grow if you have not already done so. It grows more in the form of celery and 'all but their outer leaves blanch out a pure white and you will find it more tender than any other cabbage in texture and very mild in flavor.

We have two kinds of Chinese Cabbage. "**Paoting**" grows about 12 inches high and weighs 9 pounds, and "**Peking**" grows 15 inches high and weighs about 11 or 12 pounds. Chinese Cabbage is so mild in flavor that it may be relished in many different ways of serving.



Chinese Cabbage.



CAULIFLOWER

While cauliflower is not generally grown in the home garden yet if you follow the directions on our packets, you cannot but succeed with it. The plants do not seem to do well early in the season, but you will be surprised to find quite a few well formed heads before the season closes.

The three best varieties in cauliflower will serve every purpose and therefore we only handle the **Early Snowball**, **Dwarf Early Erfurt** and **Dry Weather Cauliflower**.

Early Snowball is the earliest and quite sure to make good heads, not as large as the others and chances for success are better in the home garden. Heads are solid and can be planted close.

Dwarf Early Erfurt grows to larger size than **Snowball** and is the variety usually grown by the gardeners and those well experienced in cauliflower. Is not as early as **Snowball**.

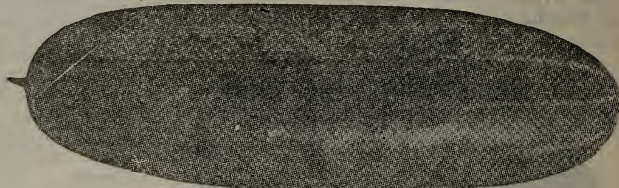
Dry Weather Cauliflower will stand hot weather better than any other kind and, therefore we recommend it highly for the home garden as we believe chances for success are better. We have seen it produce

good heads in rather dry seasons if it had good cultivation, which is very necessary in growing all cauliflower. For your first start in growing cauliflower we believe you would do best to try **Dry Weather**.

CUCUMBERS

One ounce of seed make 50 hills; 2 lbs. of seed for one acre.

It might be said that the best eating cucumber is the last one picked from the vine. No matter how good in quality a cucumber may be it will soon turn bitter and tasteless when delayed in getting to the consumer through the store route.



Bruns Evergreen White Spine

Cucumbers from your garden are 95% better than what you are liable to get at the stores.

We don't claim to have the "Earliest Cucumber on Earth" but we do have one or two special strains that are the best that careful selection and breeding can make. Our best slicing cucumber, **Bruns Evergreen White Spine** is simply everything desired in a slicing cucumber. It grows 10 to 12 inches long, with a rich dark green color that always stays with it, as it never turns yellow, the flesh pure white with an unusually small seed cavity with flesh very firm and crisp of excellent flavor. The vines are very vigorous with heavy foliage which helps to resist attacks of insects and the fruits are always straight. What we have in this variety is the outcome of years of careful selection. We make no claims for it as a pickling variety, but as a slicer it is perfection itself.

There are other varieties good for slicing purposes, such as **Davis Perfect**, **Cool and Crisp**, **Arlington White Spine**, **Early Fortune** and **Early Cluster**. Of these kinds **Davis Perfect** is a handsome cucumber with dark green color, white crisp flesh of excellent flavor that has made it a highly popular variety. **Cool and Crisp** is an extreme early kind of good size and fine quality, claimed as the most productive of all main crop cucumbers. **Arlington White Spine** is grown by the best market gardeners for their most particular customers. Fruits are 7 to 10 inches long of a bright green color, rounded at both ends, white flesh of fine grain and flavor and one of the very best slicers. **Early Fortune** has fruits 8 inches long, slightly tapering and is very early and has very heavy foliage with the fruits a rich dark green and stands shipping remarkably well.

Early Cluster is a heavy bearer and grown in clusters of two and three fruits and is one of the smaller slicing kinds. This kind is also used for pickling as well as slicing. It can be depended upon as a good bearer and probably the best of the few kinds that may be used either for slicing or pickling.

These kinds listed above as slicing cucumbers are all good and if we should be asked which are the best we would no doubt say that **Davis Perfect**, **Arlington White Spine** and **Early Fortune** seem to take a little lead over the others mentioned.



Davis Perfect.



Arlington White Spine

Pickling Cucumbers

Improved Long Green is used so extensively for pickling that we have placed it in that class. It grows fruits 12 to 15 inches long, dark green color and tapered slightly at stem end. While it is a most popular kind to grow for pickling when small in size, it is the favorite for pickling when it has become ripe, perhaps the best of any for this purpose. It is also a very good slicing kind before it turns yellow.

Bruns Chicago Pickling we are sure is many points ahead of the average stock sold as **Chicago Pickling** as our stock comes from a very particular grower with fruits shorter than the average of this kind, slightly tapered at one end, but the ends are quite full and the small pickles very dark green and uniform in size of almost perfect shape. This would be our first choice as a pickling cucumber.

Early Russian is an extremely early cucumber, excellent for pickling when young, but should be used when small as the variety turns yellow soon after becoming of good size. **Boston Pickling** is a fine variety to grow for medium sized pickles.

Japanese Climbing Cucumber makes fruits 10 to 13 inches long and of excellent quality, can be used for slicing or pickling. It is a real climber and poles or trellis are necessary. The fruits are very straight and very dark in color with a rather rough surface. The flesh is pure white and very tender.

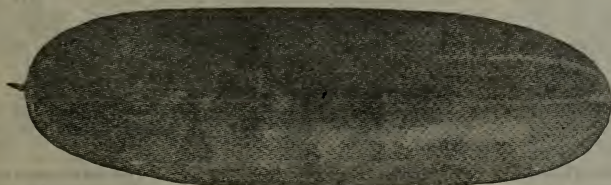
Japanese Cucumber "Fushinari" comes from an imported variety. It grows 8 or 10 inches long, not tapered, at the stem end and very smooth surface except for a few spines at its center. They are dark green and hold their color and crisp quality for some time after pickling and an excellent shipper. They grow in clusters at every joint on the vine and this variety is well worth a place in your garden.



Bruns Chicago Pickling

MAKE TWO PLANTINGS OF CUCUMBERS.

As a rule it is best to make two plantings, first as early as the spring will permit to furnish fruits for the table and the later sowing about July 1st, will furnish later fruits and pickles which are best put up during the cool fall months, for winter use.



Improved Long Green.

Sweet Corn

Of the many good things taken from the garden, nothing is looked forward to with greater pleasure than the luscious sweet corn it will supply. For complete satisfaction in sweet corn it is necessary to have pure bred stock to get the tenderness, sweetness and good shape of ear. We grow and have grown for us those varieties that give absolute satisfaction, each kind pure and has been giving 100% satisfaction.

FIRST EARLY KINDS

Beginning with the earliest varieties there is nothing better than **White Cob Cory** and **Golden Bantam**, which are about on equal terms as to earliness, possibly **White Cory** having a trifle advantage over **Golden Bantam**. If there are earlier kinds than these, they would only have them beat two or three days and why take chances on sacrificing genuine known quality afforded by these two varieties for an uncertainty.

White Cob Cory, shown on this page, gives well formed ears about 6 inches in length, usually eight rowed, grains rather large and of the sweetest flavor and a very small cob in the pure bred stock. The ears hold their fullness of grain well to the tip and is a very attractive and convenient sized ear for serving. It is the best in early pure white sweet corn.



White Cob Cory

Golden Bantam is worthy of whatever praise can be given it. Is about the size of **White Cory**, six inches in length, see illustration on back cover, and is eight rowed. It has a sweetness in flavor all its own and while at first there was some objection to its color being light yellow, that has been over ruled and the demand for **Golden Bantam** is enormous, perhaps second to none. It is a fine sort for planting as late as July 15th as well as early planting. Some kinds have been brought out as improvements on **Golden Bantam**, but we have never seen anything yet in this line worthy to be called an improvement on the **True Golden Bantam**. It is like gold itself, nature made it and it cannot be improved.

Another good early corn is **Peep O'Day** which follows **Golden Bantam** in earliness and about the same size ear, but with smaller grains, it being a ten rowed ear. The stalks grow about four feet high and while we admit it has not the quality of the first two kinds named in this list, **Peep O'Day** is specially recommended for the Northern gardens as it is very hardy. It is of sweet flavor and tender, its only objection if any is that it does not have a very heavy husk in this latitude and seems to be bothered more with worms than some of the other early kinds.

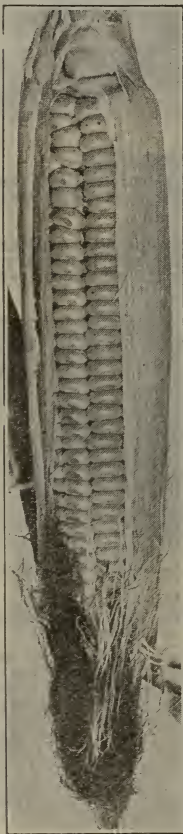
Early Adams is a sweet corn in a class by itself, in fact is not considered by us a true sweet corn as it is inclined to be flinty and the seed looks more like field corn. We have sent it on some orders and had it returned with the report that we sent them field corn by mistake. Notwithstanding all this, it is very early and has its important place, as it is the only sweet corn that can be grown successfully in some parts of the South on account of destructive worms, which would not allow the growing of our best varieties. It is good in its early stage and grown to some extent as a good fodder corn in the North. It is a white corn with an ear six or seven inches long and very prolific.

There is one valuable sweet corn that is not having a fair show and that is **Black Mexican**. The seed when matured is black and that seems to frighten people away from it. We will stand up good and strong for **Black Mexican** as it has fine qualities. The ear does not show its dusky color until after it has gotten too far along to be good for the table. When it is large enough to use it is pure white and gives you nothing but the finest quality in sweetness of flavor and tenderness. It has a well balanced ear, 6 or 7 inches in length, with eight and ten rows. To those that have misjudged this corn you should give it a trial and you will feel that you owe an apology to nature.

SECOND EARLY KINDS

For second early kinds you can make another planting of the earlies, or there are kinds planted early will be ready after the first earlies have been exhausted.

Early Minnesota will come in ready for use after the earlies, and a well known kind deserving of good praise. It is an ear seven to eight inches long, eight rowed and stalks growing about five feet high.



Golden Bantam



Country Gentleman

LATE VARIETIES

We specialize on two late varieties of sweet corn and these two kinds are the best there is and will serve every purpose.

Country Gentleman is a wonderful sweet corn, with large thick ears completely filled with tight fitting grains in irregular arrangement, that are very deep and almost bursting with milky sweetness. It has a heavy husk and the grains being so tightly set it will keep in its tender milky condition for quite a space of time. Its flavor is superb, always desired for canning purposes and one of the finest for the home garden as well as profitable for the gardener. Country Gentleman is about the third maturing variety on our list, being a trifle ahead of Stowell's Evergreen.

Stowell's Evergreen so well known that it hardly needs description is most satisfying of any straight rowed late corn.

There are different types of Stowell's Evergreen, some of them hardly worthy of their name. The true stock is an ear about eight inches in length, sixteen or more rows to the cob, of grains, quite deep. Our stock carries out the good shape of the ear well to the tip and the large deep grains are filled with the sweetest flavor. It is the standard main crop, late variety and we can serve you with the very best of this very valuable variety.

To plant for an all seasons supply of sweet corn, use **WHITE COB CORY** or **GOLDEN BANTAM**, **PEEP O'DAY** or **BLACK MEXICAN**, **EARLY MINNESOTA**, **COUNTRY GENTLEMAN** and **STOWELL'S EVERGREEN**. These kinds will mature in the order as listed if planted at the same time.

POP CORN—See page 29.

EARLY MINNESOTA—Continued.

The grains are broad sweet and tender and the ears grow very uniform in size with a heavy husk enclosing them. Is successful in all sections and we recommend it as one of the best large eared medium early sorts.

To follow Early Minnesota we suggest **Early Champion** with an ear a little larger and, of fine quality and ready for use in about seventy-five days from sowing, with ears 7 to 8 inches long, rather thick, having twelve and fourteen rows on the cob, grains large and deep. Two good ears as a rule to the stalk and therefore very prolific. It is pure white in color, very juicy and tender.



Stowell's Evergreen

LETTUCE

One ounce of seed will sow about 200 feet of row.

Lettuce is the one great necessity of every garden and it is well to have two or three kinds and sow at different times for a successive supply.

Of the loose leaf varieties perhaps none is better thought of than the **Early Curled Simpson** for the home garden. It grows erect with very large leaves of light green color frilled and crinkled, very tender and of excellent flavor. Each root sends out numerous leaves that form sort of a head and a small space will furnish a large supply.

Black Seeded Simpson grows even larger than the **Early Curled Simpson**, as shown by photo reproductions of one head in bushel basket, with the inner leaves forming a rather compact head that is very tender and of fine sweet quality. Its even light green color is attractive and its center is a creamy white. It is a very fine general purpose lettuce for the home garden and grown extensively by the gardeners.

The most important loose leaf commercial variety is **Grand Rapids**, grown so extensively in the greenhouses by the best growers and also in both market and home gardens. It has a longer and more narrow leaf branches out into a very attractive and other than varieties and the tive crinkled form of leaf of a handsome shade of green. While it does not make a head, each plant holds its leaves quite well together and are very convenient for handling or using in any way. It is the most handsome lettuce for serving and retains its freshness a long time after picking, also stands heat remarkably well while growing. It is of superb quality and always to be recommended as one of the first in the loose leaf kinds.



Black Seeded Simpson.

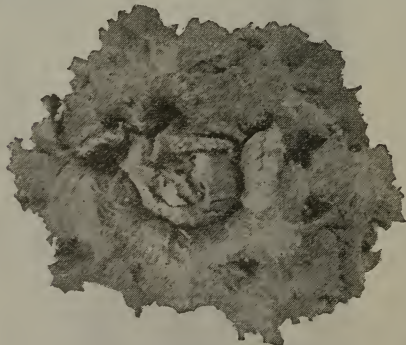
better than the average stock. So many of our customers have had trouble in growing head lettuce and in that case we would recommend **Bruns Improved Hanson** as if given any chance at all it is sure to make good heads that remind you of small heads of Late Flat Dutch Cabbage. The very best results can be had by transplanting when large enough to handle, but if not too crowded it will head where the seed is sown. It has a light green attractive color with the leaves crinkled at the edges and they are very tender and of the finest buttery flavor. The inside of head is a creamy white.

Head Lettuce

In the head lettuce we have a wonderful demand for **Bruns Improved Hanson**. Improved Hanson has always been a grand lettuce and by careful selection we have a little

Early Prizehead is a fine quality lettuce and like the above kind is excellent for the home gardener and amateur to grow, as it is sure to head. The leaves are large and crimped at the edges and tinted brownish-red, very thin in texture and fine flavored. The very best of the brownish colored kinds.

Another of the colored sorts is **All Seasons** which has a very light golden yellow tint, with the inner leaves a buttery-yellow and a kind greatly admired by many as the very best for salads and for serving with mayonnaise dressing. It makes a medium-sized head of a rather smooth thick leaf but tender and of a fine buttery flavor.



All Season Lettuce.

California Cream Butter lettuce is largely grown in the South and shipped North during the winter months. Its interior part blanches to a pure white and is certainly delicious eating at any time. The heads are large and solid, made up of leaves rather thick in texture, but very tender. Being very solid it will keep for a number of days in good success.

LETTUCE--Continued

MAY KING

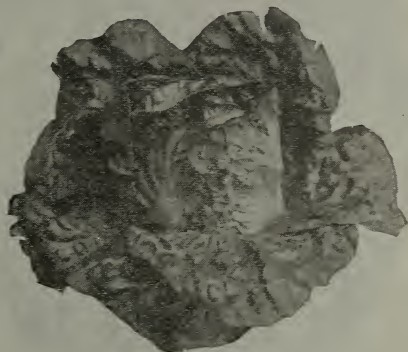
For an early large head lettuce **May King** is what we would recommend as it grows very rapidly and can be planted very early in the spring. It grows very compact, in fact has very few loose leaves, its outer color a bright green with inside a rich buttery-yellow with a wonderfully fine flavor. It is grown in the North and South with equally good success. The solid heads will many times weigh one pound and are excellent keepers.



May King Lettuce.

BIG BOSTON

Brun's Big Boston is used as a forcing variety as well as for growing in the open. It produces very large heads, many times being 12 inches across and while the heads are very large they are compact and blanch out a rich yellow color inside and very tender. It stands adverse weather conditions remarkably well and keeps a number of days in good condition. It is a fine cabbage head variety and our special selected stock is in greater demand each season and are sure we can serve you with the very best of this important lettuce.



Big Boston Lettuce.

The Best Remedy for Insect Pests

"GARDITE"

We have always had so many inquiries as to what to use for this or that insect that was destroying melon, cucumber and other vining fruits and in fact many garden vegetables, in answer to which we would recommend various remedies.

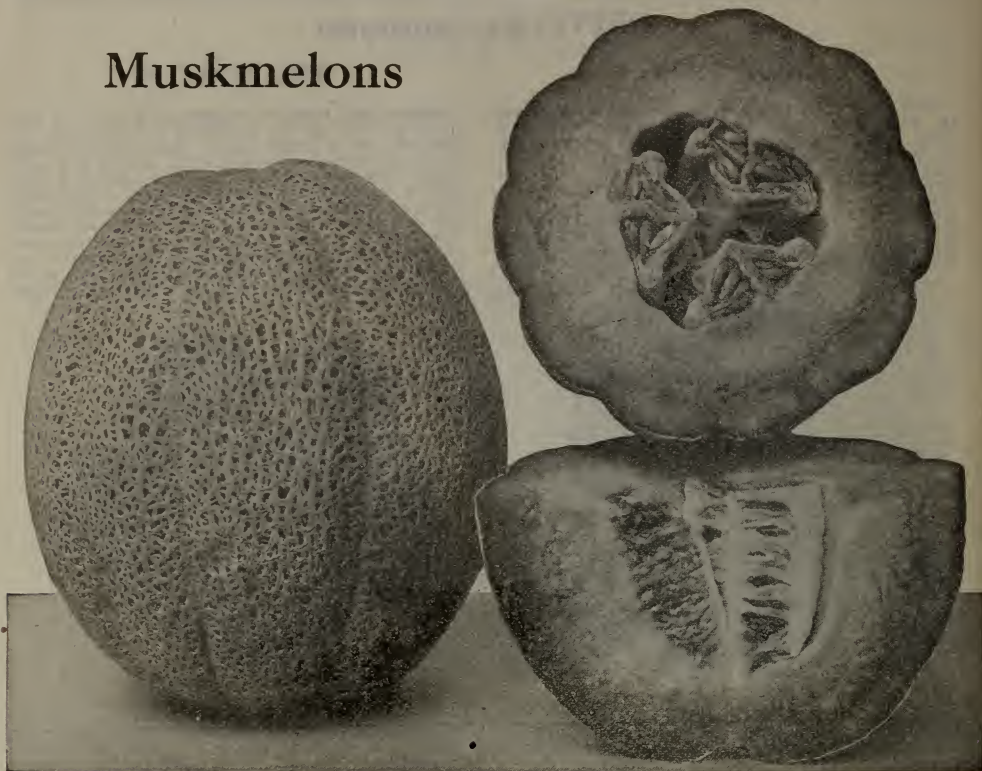
We now have one universal remedy that we believe is the best ever offered, as it seems to drive away or kill ants, bugs, lice and worms of all descriptions and that is **Gardite**. You must realize, however, that if you leave your plants until they are badly infested with some pest, that it is a hard proposition to rid the plants of them; besides, even if you do get rid of them, they have already done considerable damage in weakening the plants that in turn will produce imperfect fruit. See page 41 for full description of **Gardite**.

To grow the best vegetables and fruits you must prevent their being damaged by insects and this can easily be done. Why not take this course in the beginning and prevent further trouble and annoyance?

Gardite is non-poisonous and therefore absolutely safe to dust on all garden plants and growing flowers. We can send you a 1-pound can of **Gardite** postpaid for 45c and an occasional dusting of this powder from the sifter-top can will assure you of a garden clean from insect pests.

Don't wait until it is a matter of killing the insects, but use **Gardite** and you will not have any insects.

Muskmelons



Bruns Green and Gold Muskmelon

One ounce of seed will plant about 75 hills; 2 lbs. one acre.

To think of muskmelons is to bring back fond recollections. There are many so gloriously good that it is hard to say which is best. We personally prefer the salmon fleshed kinds, however, we have one that might be called half and half which is **Bruns Green and Gold Muskmelon**, the masterpiece in muskmelons.

Nature has left no room for improvement in **Bruns Green and Gold Muskmelon**, either in quality or beauty of design. You note from the photo reproduction that it is thick meated and has the most handsome combination in color imaginable and this green and gold colored flesh being luscious in flavor clear to the thin green rind, while it has a sweet aroma that will make you want more. It is the right size for serving in halves, the fruits being of a uniform weight of about one and three-quarters pounds. It is only slightly ribbed, with fine netting of a soft russet-green color and its light green flesh that merges into a gold or salmon color at the center makes it the most attractive melon ever looked upon. It is a good bearer and the vines have proven themselves rust proof and strongly drought resisting. It is an excellent shipper and market gardeners have found it takes the lead over many other kinds wherever their trade becomes familiar with it.

YELLOW FLESHED SORTS

The salmon-fleshed kinds are always in demand, whether early or late. For the earliest we would recommend **Emerald Gem** and **Paul Rose** or **Petosky**. **Osage** will be ready for use about ten days later than these two first named kinds.

Bruns Earliest. The earliest salmon fleshed muskmelon, fine grained, not stringy and of the most delicious flavor. They bring the highest market prices as they are very uniform in size and shape, just right to be served in halves. The color of the flesh is a deep orange and very thick. It is quite heavily netted and they will average a weight of one and one-half pounds. It is a very safe market melon for it produces good crops under unfavorable conditions and the vines stand blight better than most varieties. This melon is shown on the back cover.

Emerald Gem might be said to be the best home garden melon for it is very tender and therefore not a good shipper. It has a rich deep emerald green color, only slightly netted and slightly ribbed. It has thick flesh, good to the very rind and always luscious in flavor.

Paul Rose or **Petosky** is noted as a melon of fine quality and especially a good keeper and shipping melon. The fruits are deep green in color and only slightly netted and with shallow depressions between the ribs. Its thick orange flesh is of fine quality and flavor. It is a cross between the famous **Osage** and the **Rocky Ford Melons** and resembles **Emerald Gem** except that its netting is a little more prominent.

The famous **Osage muskmelon** is always worthy of special mention. It is the melon supplied to markets in all parts of the country and always meets a ready sale. It is somewhat oblong in shape, our Iowa type somewhat netted. Our stock produces thick meated and deep salmon colored flesh that is exquisite in flavor and is a wonderfully good shipping melon and one that does well where others do not seem to succeed. It is considered the best general purpose melon in cultivation.

Banana Muskmelon is a distinct type, surpassing many others in its great fragrance. It grows from 20 to 25 inches long and from 4 to 5 inches through at the widest part and tapers to a small crooked neck at the stem end. For a great part of its length the flesh is solid, showing a seed cavity only at its widest part. Its flavor is very fine and the flesh a deep salmon color and good eating to the rind. It is best fitted for a home garden melon.



Osage

GREEN FLESHED SORTS

Honey Dew comes as a real sensation. It is the result of crossing the Rocky Ford Cantaloupe with a South American melon resembling a Casaba. The result is a round form weighing from 8 to 10 lbs., almost white in color when growing and when ripening turns to a lemon yellow and when cut it reveals crisp green flesh, a beautiful contrast in color to its very smooth outer surface. In fact it resembles the Casaba,



Hackensack



Bruns Earliest
(Description page 20.)

except in flavor, which is the sweetest imaginable. It has a very tough rind for a melon of such superb flavor and will therefore keep for many days after being taken from the vines. It is a real novelty, but not as some are, disappointing in good quality therefore we would advise all to have this delicious melon if possible.

The genuine **Rocky Ford Melon** or **Cantaloupe** will find a welcome in many thousands of gardens this season and we can give our customers the best in quality and type of this wonderful little melon. Our carefully selected seed produces perfect specimens handsomely netted, thick fleshed and of superb flavor. We have a big trade on our **Rocky Ford cantaloupe** seed, increasing each year through our care in selection of seed.



Honey Dew

Bruns Netted Rock is a melon resembling the Rocky Ford, but not as oblong in shape with the outer surface a rich golden-green when fairly ripe. Its thick tender green flesh is melting in quality and of delicious flavor. The main point of advantage of Bruns Netted Rock is that the vines are shorter than other Rocky Ford types and therefore can be confined to a much smaller space in a hill than other kinds require. It is the ideal melon for the small home garden where space has been too limited for muskmelon growing.

The largest green fleshed melon is **Early Hackensack** which is also a very early kind. They will weigh from 8 to 10 pounds, heavily netted and flattened at the ends, with flesh very thick of a light green in color and very sweet flavor. They are very prolific and sell well in many markets on account of their size and handsome appearance.

WATERMELONS

One pound of seed will plant about 40 hills; 3 to 4 pounds one acre.

We can say the same about watermelons that we did of muskmelons, there are so many good ones that it is hard to say which is the best.

EARLIEST VARIETIES

The very short oval shaped and almost round, in form are the earliest and we have some of the very best of that class.

For the very earliest and of superb quality **Bruns Early Universal** is the one of most value to our customers and ourselves, for the reason that we have watermelon customers in many different states and it has always been successful in many latitudes where others fail. It is a result of crossing a very early with a later maturing and has qualities all its own. It is almost round, in some localities growing to a length of 20 inches and in others seldom over 12



Bruns Early Universal

inches in length. Its color is a dark green, faintly striped, with lighter shades, with a very thin rind, tough enough for nearby markets but would not stand shipping at all on account of its tender qualities. Its flesh is a brilliant red, slightly darker in shade than many others, fine grained and ripens clear to the rind. It will weigh from 15 to 20 lbs. and the vines are very thrifty. In flavor it is simply the "sweetest of the sweet" and its success over a wide range of country puts it in a different class in that respect. If you want an early water melon for home growing or the nearby market, one that we feel sure will be a great success with you, take **Bruns Early Universal**.

Among the other rounded form early sorts, we would next recommend **Sweetheart**, one of the best large tender kinds. It is light green, slightly mottled, flesh bright red, crisp and very sweet. It can be shipped to nearby markets but is not intended, for rough handling. It is a quality melon and most always gives fine satisfaction.

Harris Early is a good melon of this same type, skin mottled green and white, flesh brilliant red and very sweet and with all its good qualities is a good shipper, perhaps the best in this respect of the early kinds. The seeds are entirely black and not as near center of melon as in some varieties.

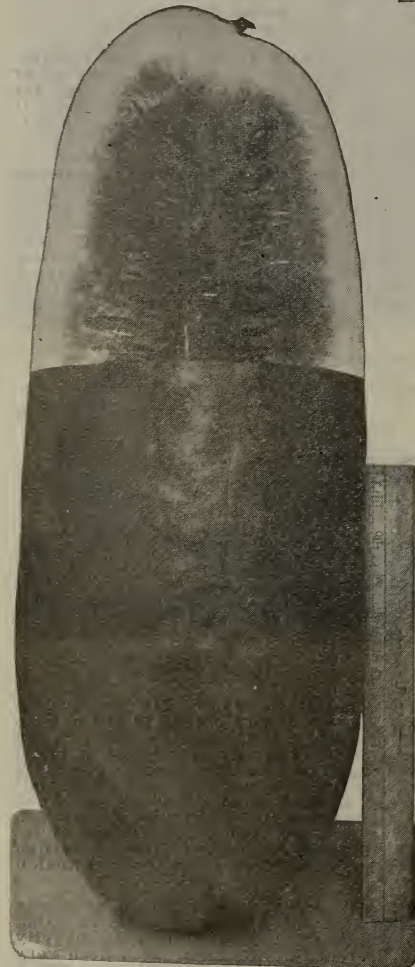
Fordhook Early is a similar melon except it has a dark green skin and a thin rind. The flesh is of superb sweet quality and a fine sort for the home garden.

Another fine melon of this class is **Cole's Early** which is similar to Harris Early and of fine quality. It has sort of a mottled skin and brilliant red flesh that is very sweet. It is rather more tender than Harris Early and not as good a shipper, but fine for the home garden. **Iceburg** is one of this class that many call for, but we do not consider it of as good quality as any of the others named above. However, it may do better in other localities than here. It is dark with light green stripes and a splendid shipper, but the flesh is rather coarse, and not as sweet in flavor as others named above.

LATER MATURING VARIETIES

Of the long oval shaped watermelons, we have found nothing to excell the **Tom Watson**. It was developed a few years ago and in many parts of the country and in the melon growing sections, they say that when they speak of watermelons, they of course mean **Tom Watson**.

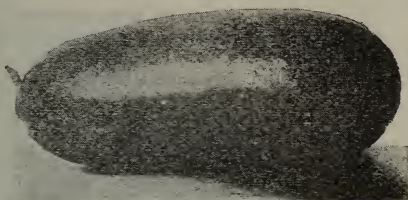
Carloads of these fine melons are grown near Muscatine, Iowa, and we have seen them sell by the car at 30c per melon some time before these present high prices were prevailing.



Tom Watson,
The Great Commercial Melon.

WATERMELONS--Continued

For fine quality and at the same time a good shipper Tom Watson cannot be bettered. Its fine form, inclined to taper just a trifle at the stem end, its attractive dark green glossy color, its thin but tough rind and above all its bright red, fine grained and, extremely sweet flavored flesh have made a name for it the country over that will last many years. They will weigh from 50 to 60 lbs., and run very uniform in size. It is a great producer and in fact is so good in every way that if any melon grower has not tried it he should be considered a freak of the profession.

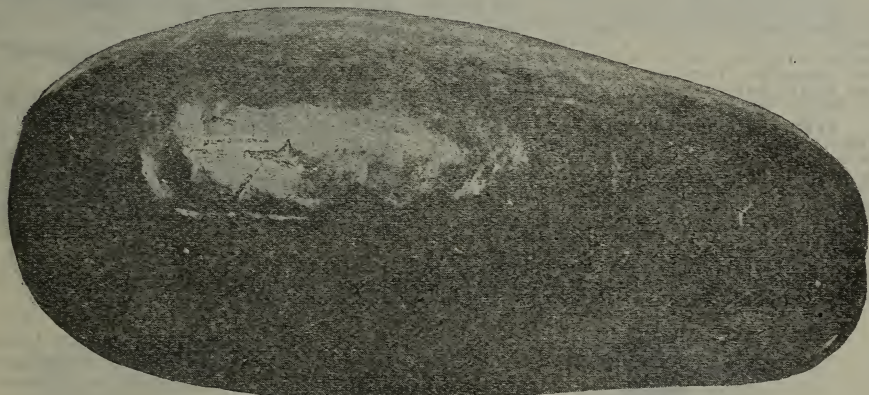


Kleckley Sweets or Monte Cristo

Perhaps the next most important would be Kleckley Sweets also called Monte Cristo, but too tender to be a good shipper. The color is a very dark green and resembles Tom Watson in general appearance, even to its slight taper at one end. Its rind is very thin and not tough enough to stand shipping. It is perhaps the earliest of the large kinds, being a few days later than Bruns Early

Sweet in outward appearance, but having darker colored red flesh that is very sweet and, a good shipper.

Still another melon very similar is Dixie, like the other two above named, having dark green skin mottled with lighter shades, bright red flesh of fine sweet flavor.



Halbert Honey

Universal and Harris Early. It has brilliant red flesh of exceedingly sweet flavor.

One of the best shippers, aside from Tom Watson is Alabama Sweet, with a dark green skin faintly striped with lighter shades, dark red flesh, fine grained and very sweet. Another large melon of this same nature is Florida Favorite resembling Alabama

Halbert Honey is a fine large tender melon, not a good shipper and handsome in appearance. Its skin is a clear dark glossy green color, flesh bright crimson and the color runs to within $\frac{1}{4}$ inch of the rind, which is very thin. Its flesh is of the very sweetest and is a fine home garden melon.

Melvers Sugar or Wonderful Sugar is a large melon, dark green with broad stripes of light green very prominent. Its flesh is a rosy-pink in color and very sweet. Its rind is too thin to be a shipper, but this variety stands wet weather and drought remarkably well.

Georgia Rattlesnake or Gypsy is one of the big melons still grown in the South and other parts. Its light green very prominent stripes on a dark green background make it very conspicuous and it is a melon of good quality and a good shipper.

Angels Kiss is peculiar in its appearance, having light green intersecting lines on a dark green background, resembling an alligator skin pattern. It is large, weighing from 35 to 45 pounds, and while we have not had much experience with this melon it is said to be of good quality, as its name might imply.



Florida Favorite

ONIONS

One ounce of seed will sow about 150 feet of drill, 4 to 5 lbs. per acre. For growing sets sow from 50 to 60 lbs. per acre.

Growing onions as a commercial crop is interesting and highly profitable if you have good seed that will produce true specimens and your ground is enriched, free from grass and weeds and can be kept clean. Before growing onions for sale find out the color and type of onion demanded in your markets.

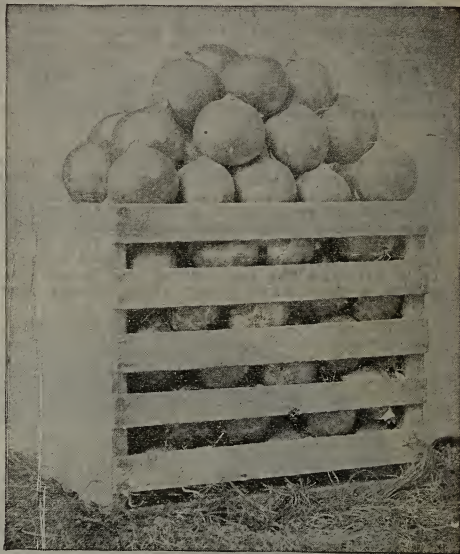
For the very earliest and a sure cropper **Australian Brown** cannot be excelled. It begins to form bulbs early in its growth and it is of medium size, rather flattened, or a brown color and unusually mild in flavor. It is an excellent keeping variety and especially recommended for the North. While its color does not always run exactly uniform, it does not vary enough to be serious and it is a valuable early onion for home or market gardens.

Bruns Prizetaker is American grown stock selected from the best bulbs and has made a good record for us among those that require pure stock of this important variety. On good soil it develops rapidly and has grown specimens weighing about 5 lbs each.

Its mild flavor and pure white flesh places it among the fancy onions sold in the stores in the larger cities. Its light straw color and perfect globe shape with very small neck, and all running so uniform in size, makes an onion that is in constant demand on the markets. For the home garden, where you might have a spot well enriched, there is no better kind to grow.

Yellow Globe Danvers is similar in quality to the Prizetaker but does not grow as large in size. It has the light straw color, is mild in flavor, flesh pure white and juicy and is an excellent keeper, possibly surpassing Prizetaker in this respect.

A very important main crop variety in many sections is the **Southport Red**, **Yellow and White Globes**. They are all the same except in color, which runs very uniform in each variety. The **Southport White** and **Southport Yellow** are in great demand in the East, while the **Southport Red** is in great demand in the West.



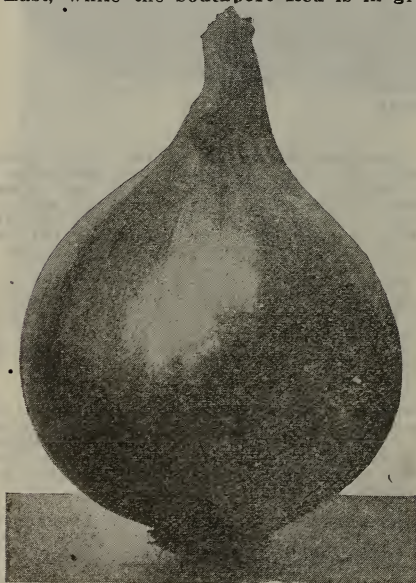
Bruns Prizetaker.

They have produced as high as 800 bushels to the acre and stock grown from selected seed is a wonder to look upon as they run so uniform as to size, color and shape.

The **Large Red Wethersfield** hardly needs any description, being so well known everywhere. It is the heavy cropping, dark red, somewhat flattened in form, fine keeping onion that is on sale everywhere. Not as mild in flavor as some sorts, but a wonderful onion for keeping through the winter and always brings good returns.

A good flat yellow onion is **Yellow Dutch** or **Strasburg** which grows to a large size, of a light straw color, flesh pure white and mild. It is an excellent yielder, a good keeper and an excellent variety for the growing of sets.

Among the white onions the most generally successful is **Southport White**, as it is of medium size, pure white in color of flesh with a silvery-white skin and very mild. It is a good seller in the markets and recommended for any section.



Southport Red Globe.

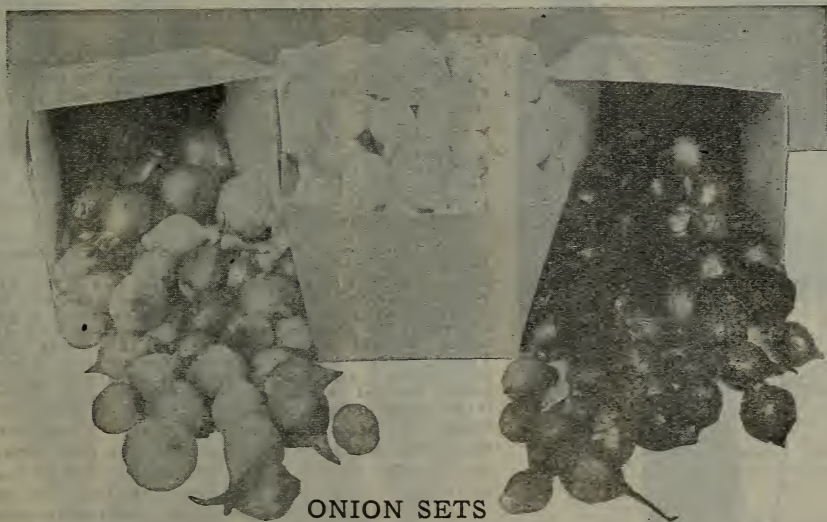
All new crop onion seed. Grown from selected bulbs, true to color and shape.



Large Red Wethersfield.

Mammoth Silver King while growing to a large size is one of the earliest of white onions of a flattened type, with small neck and silvery-white skin, pure white flesh very mild and pleasant in flavor and unusually juicy. It is of such fine tender quality that it is not as good a keeper as the other whites, but unsurpassed for table use and recommended as the best exhibition onion to be grown.

White Portugal or **Silverskin**, not quite as early as Mammoth Silver King, nor as large, is of fine quality, tender and mild and a very good keeper. It is flattened in form and recommended for the home garden, also for bunching when young and for the growing of sets. It can be sown as late as June 1st, and will make good pickling onions by fall.



ONION SETS

Sets will give you a good start over the seed if you wish to grow large onions. They are also used to advantage in producing bunching onions early in the season. Our sets are produced from the best grade of seed, and whether you have red, white or yellow they will produce good sized onions true in color and uniform in size. Our sets are not produced from a mixed lot of seed or seed of low germination. Green onions from sets will be one of the first vegetables in the spring and one or two quarts will produce a supply sufficient for a small family.

Young onions produced from sets are always tender and it is simply a matter of choice as to what color you prefer. Red sets will possibly produce edible young onions a little quicker than the others.

For prices of Onion Seed and Sets see price list at center of book.

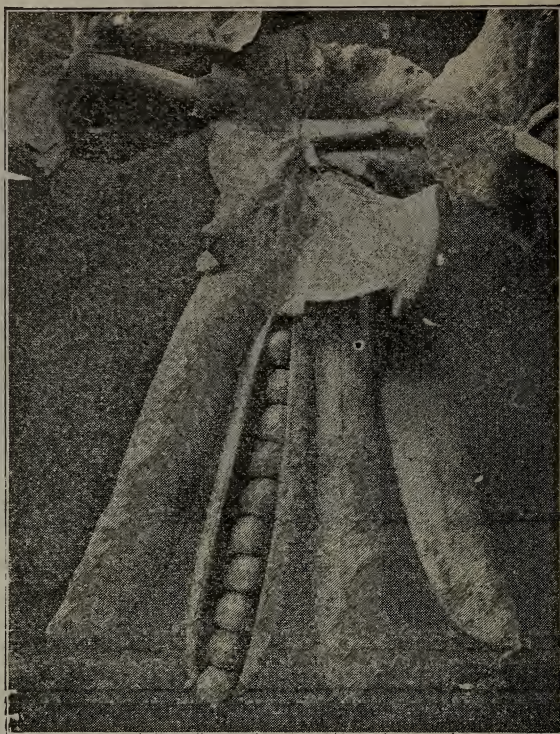
PEAS

One pound of seed will plant about 50 feet of row. 120 to 180 pounds plant one acre.

Owing to the seed crop of garden peas not being as large as usual, those that delay in ordering will be liable to disappointment.

Early peas are highly profitable to the gardener and highly pleasing to the home gardener and housewife.

To get the full advantage of the earliest garden pea, it must be a variety that is hardy enough to plant very early, therefore the smooth seeded kinds are more reliable as earlier than the wrinkled sorts. **Bruns Earliest**, is the earliest we have ever found, which is a strain we secured for our own exclusive use from one of the best growers of garden peas in the country. The illustration opposite represents this pea just as it grows, all maturing so nearly at one time that one picking can be made and they are produced in clusters of three and four, allowing very easy gathering. The vines grow about 20 inches high, are strong and thrifty and so hardy that the seed may be sown as early as the ground can be worked, a slight frost not in-



Bruns Earliest

jurating them. The seed is round and smooth and when ready for use have an elegant flavor. The vines do not need support unless the soil is very rich.

The next early pea to follow **Bruns Earliest** is **Alaska** which is always reliable and matures its pods at one time. The seed is green in color and our stock shows a slight wrinkle in the seed. It grows from 20 to 24 inches high and highly recommended for the early market.

In the very dwarf growing peas **American Wonder** is the shortest, growing 10 to 12 inches high and is the earliest wrinkled pea. We have very true stock and let us say that you will find it highly satisfactory, as they always make a good showing for themselves. **Premium Gem** and also **Little Marvel** both grow about 15 inches high. **Premium Gem** has a large pod for so short a vine, containing 6 and 8 large peas of excellent quality. **Little Marvel** is similar to **Premium Gem**, having large pods possibly a little darker in color well filled with peas of a delicious flavor. These three short vine sorts are all good ones, the first, **American Wonder** having a smaller pod, but lots of them to the vine, and the other two, **Premium Gem** and **Little Marvel** having larger pods. **Laxtonian** comes the next in line for height, growing about 18 inches high, with large pods. It is called the **Dwarf Gradus** as the pods, peas and their flavor resemble those of the **Gradus** pea which is a tall growing kind. The **Laxtonian** has been much advertised, but we are frank to say that we have found the pods not filling as some other varieties and have heard this complaint from others. It is a fine flavored



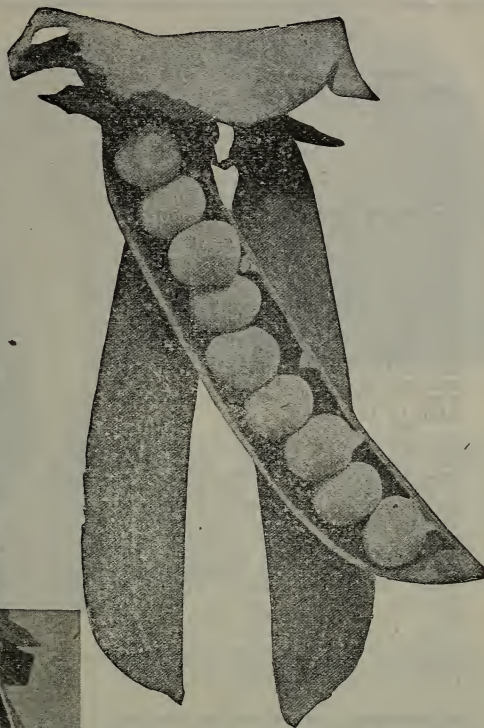
Early Alaska

PEAS--Continued

pea however, and might do fine in your locality. A very reliable pea is Nott's Excelsior well known to many, growing 15 or 18 inches high, according to richness of soil and has large pods with 8 and 9 peas of the finest quality. In earliness it is about equal to these other short growing kinds. Strata-gem grows about 20 inches high, the vines very robust and very seldom requiring support, 8 or 9 large peas are packed in the pods, which are formed nearer the tops of the vines than most other varieties. A fine market pea of the finest quality.

Advancer grows about 25 inches high, is planted largely as a crop to follow the earliest and much used by canners. It is considered the best producer of the mid season kinds with the vines vigorous and hardy, a good bearer with peas of fine flavor and tender quality. The pods are unusually well filled to their end.

Gradus or Prosperity is a wonderful and early pea growing about 2½ feet high. It will make a large pod like the Telephone pea within a very few days after the very earliest kinds and its quality in tenderness and sweet flavor is of the very best, claimed by some best of all in quality. As many as 10 peas to a pod of luscious quality and the vines filled with pods. Its good qualities have made it widely known and as we have a large demand for it and the stock may be short, you will have to "come quick" to be sure of getting selected seed from us this



Champion of England.



Brun's Telephone

season. If you could not get Gradus the next choice would be Thomas Laxton which grows higher than Gradus, or from 3 to 3½ feet and the pod is darker colored, otherwise you would say that it is the same variety as far as fine quality and size of pod is concerned. It ripens a few days later than Gradus and the pod is possibly more square at the ends, but for a good large podded pea, you can take our word for it that either Gradus or Thomas Laxton are well worth the price and the space they occupy in your garden.

Our special stock of the Telephone or Brun's Telephone is an improvement over the old stock, as the pods are a darker green and have a richer look than the old standard light pods. It grows 3½ to 4 feet high, bears abundantly, with large pods well filled with large sweet flavored peas that are hard to surpass. In the Northern states it can be planted about July 1st, about 3 inches deep and will produce peas until frost.

Our tallest growing pea is Champion of England growing to a height of 4½ to 5 feet and from 7 to 9 large fat peas to a pod, and many pods to each vine. It is a main crop variety and like the Telephone is hard to beat in the later maturing kinds. For a late large pea you can make no mistake in either Brun's Telephone or Champion of England.

Egg Plant

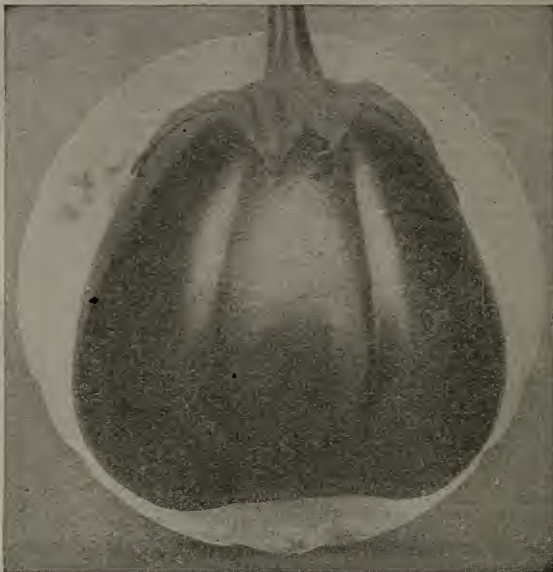
Four ounces of seed will produce enough plants to set an acre.

Egg plant is not as commonly grown in the home garden as it should be. Properly prepared for the table it is a great delicacy, but, like the cucumber, to get the best of the flavor it should be prepared fresh from the garden.

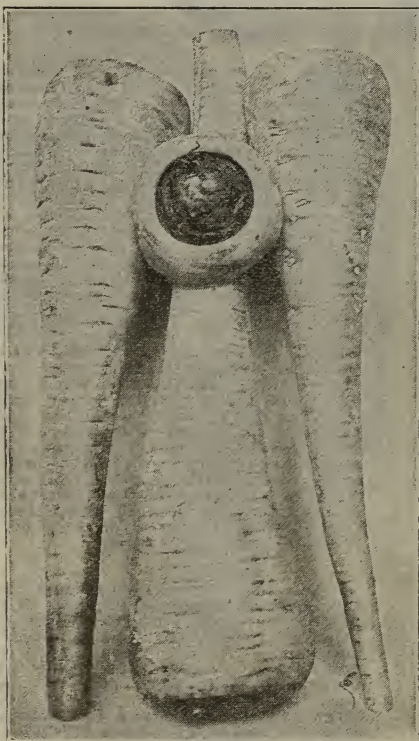
Black Beauty is the earliest and has been the greatest favorite with our customers. It is a very dark purplish-black and specimens are always true to shape. It has but few seeds, with flesh very tender and exceedingly rich in flavor.

New York Improved Purple is not quite as early as **Black Beauty** and a trifle more slender in shape and not so dark in color. It is a good variety and a great favorite kind in the East.

We can offer you quite a novelty in egg plant in a Chinese and Japanese variety. **Chinese Wonder** grows 25 inches in length, a little smaller at the stem end and only about 2½ inches through at its thickest part. It has the genuine egg plant quality and dark purplish-black in color. The Japanese Egg Plant, **Yamanasu**, is very much the shape of **Black Beauty**, but only about half its size. It is of good quality and both these novelties are well worth your trial, as they are interesting and furnish good quality at the same time.



Black Beauty Egg Plant.



Parsnips, Hollow Crown.

Pepper

One ounce of seed will make about 1,500 plants, ¼ pound of seed enough plants to set an acre.

Chinese Giant is the largest of the mild sweet peppers, growing 5 inches or more in length and quite thick at the top, of a rich, glossy scarlet color and thick meated, entirely free from fiery flavor. Another pepper of the same length, but larger in diameter and very fine for stuffing, is **Ruby King**, which is so mild in flavor that it may be eaten fresh from the garden. Another thick-meated, mild pepper of this sort is **Bell or Bull Nose**, which is a little smaller than **Ruby King** and of excellent quality as a mild pepper. Is excellent for stuffing if a smaller size is desired.

In the hot, fiery flavored peppers we have **Red Chili**, which is a small pepper an inch or so long, used for seasoning purposes, and the **Long Red Cayenne**, which is very hot, being a fruit about 4 inches long and very slender.

Parsnip

One ounce of seed will sow 125 feet of drill, 5 to 6 lbs. per acre.

Long Smooth or Hollow Crown is the old standard and best variety for sweetness of flavor and fineness of grain. The seed is slow to germinate and should be sown early, ½ inch deep and the soil pressed down over the row.

We also have the **Guernsey Parsnip**, which is of the same quality as **Hollow Crown**, but developed to have shorter roots and on that account is an improvement, as they are more easily taken from the ground. They are thicker in diameter than the **Hollow Crown**.

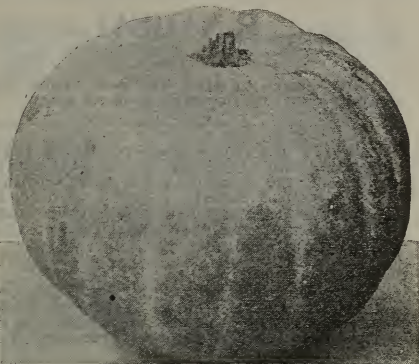
PUMPKINS

One ounce of seed will plant about 25 hills, 3 to 4 pounds one acre.

Every farm should grow pumpkins and while you are thinking about it decide to grow some for stock, some for pies and some for exhibition purposes. Any city or town garden that grows sweet corn might just as well have a few pumpkins, as they do fine growing in the corn.

Among the list we have all except Connecticut Field are good to use as pie pumpkins.

Our best pie pumpkin is **Early Sugar**, about 10 inches in diameter, the skin a deep orange color, flesh fine grained and sweet. It cooks up very quickly and the vines are very prolific. **Large Cheese** is of fine table quality. It is about two feet in diameter, flattened and of a light shade in color. Is very prolific, can be grown



Large Cheese Pumpkin.

for stock feeding, and a good keeper, and always sells well on the market. **Green Striped Cushaw** is a popular crook-necked variety, with the skin striped with mottled green bands of creamy white and with rich yellow meat, very tender and fine in flavor. **King of the Mammoth** is the largest growing kind in existence, reaching a weight of 150 and 200 pounds and while it is used for exhibition purposes, it is also of good quality for table use. A very interesting sort to grow.

Japanese Sugar Pumpkin is a novelty well worth your thought and trial. It is large and flattened and has a deep green skin that turns brown when ripe. The flesh is a beautiful rich yellow in color, tender and fine grained, unusually sweet, so much so that it is claimed no sugar is required in making it into pies. It is an imported variety from Japan and seems to us to have been crossed with the Warty Hubbard Squash, as it has a rough outer surface exactly like that squash. We believe you will be well pleased with it.

Connecticut Field is the well-known stock or cow pumpkin of which we have a good stock and every farmer should have a field of them among his corn.



King of the Mammoth.

POP CORN FOR SEED

An acre in hills requires 2 or 3 quarts. Inrills 3 feet apart, with seed $1\frac{1}{2}$ feet apart in the row would require from 5 to 6 quarts.

Pop Corn is one of the little things that bring good money. It will yield as much fodder stock. Hundreds of carloads are sold every year for popping purposes and there is always a good market for it.

Australian Hulless has been taking the lead for some time, which is a wonderful producer of fine quality resembling the white rice in the grain, but the ear is short and stocky. It pops out tender without any hard centers and that point has placed this variety in the greatest demand among the trade.

Improved White Rice forms more perfect and larger ears than the ordinary White Rice with the grains a beautiful pearly white. It is always in demand and you cannot but gain if you grow a large or small crop.

Baby Golden is the small dainty yellow pop corn that pops out very tender and of fine flavor. The little ears do not average over $2\frac{1}{2}$ inches in length with small perfect grains resembling White Rice in shape but of a rich golden color, very sharp at both ends. For a home popping corn it cannot be excelled.



Australian Hulless.

RADISH

One ounce of seed will sow about 100 feet of drill; 8 to 10 lbs. will sow an acre.

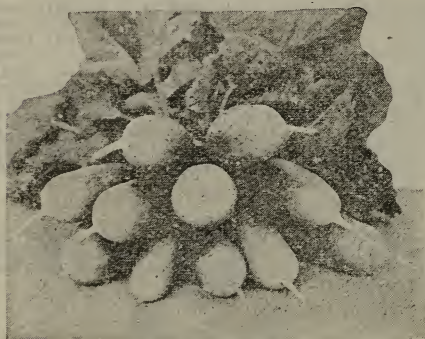
There are three main points to take into consideration if you grow the best quality of radishes. Good seed, good light, mellow soil and plenty of moisture. The ground should be enriched and if a rapid growth is made you will get real radishes that impart the real relish that there should be.

All of the little round red, the red and white tip and the icicle, also the half long kinds like the French Breakfast are very early, there only being a difference of a few days between them.

Bruns Sparkler is what we call our best early, for the reason that it is distinct in many ways. It is a round sort, white tipped as shown by the photo reproduction and the colors are so well separated and distinct that it is the most attractive of any of this class that you can grow. The upper part is a rich carmine scarlet with the tip of the purest white. It is not only attractive, but is very early, crisp and nutty and of the finest mild flavor and remains fit for use a number of days after it has reached a good size. Is equally as good for forcing in frames as for outside planting.



Bruns Sparkler



French Breakfast

Early Round Dark Red is the darkest color in skin of any of the early round red types. It being a dark red with flesh pure white makes it a great favorite. It is crisp, fine grained and well flavored.

Crimson Giant Forcing is an exception to the other varieties in that it grows to double the size of the other early round reds and is still of good quality. Some have even claimed that it is still good up to 5 and 6 inches in diameter, but you will find it crisp and tender and of fine flavor up to 2 inches in diameter, which is as large as you would expect to have a table radish of this kind. It is a fine forcing variety, used for such in the best of the greenhouses growing radishes for winter use.

There is the **Early Scarlet Turnip White Tipped** which is nearly round in form and a good quality radish, but the markings not as distinctly separated as the **Bruns Sparkler**, and not quite as early as that variety. **French Breakfast** is a very fine half long radish, early, and shows a white tip for only a short distance. It is a radish of fine quality, but will become pithy very quickly after it reaches a fit size for use. It is a fine seller as a bunching radish, and seen in the best markets.

Early Scarlet Turnip and **Early Scarlet Globe** as far as we can observe are about the same in quality. They are both early and their only difference is as their name implies, one more of a turnip shape than the other. You can make no mistake on either of them as they both have pure white, crisp and fine flavored flesh.



Early Scarlet Globe

RADISHES--Continued

You must not forget the **White Icicle**, so important that some grow it exclusively. Neither should we forget that it is one of the earliest and for some it has been the very earliest for the reason that it rapidly forms a long string-like root that seems to develop surprisingly rapid and really before you know it, unless you watch close you have radishes. They are easy to pull, are tender and juicy, with a mild pleasant flavor that creates a growing appetite for all that you may see on the table. They have such small tops that when growing you think they do not amount to much, but upon examination you will find a well-developed root just ready for the table. Its earliness will surprise you.

Long White Vienna or **Lady Finger** is in a way similar to **Icicle** but grows a longer root and has quite as much larger top. It is of good quality in every respect but perhaps a trifle later than **Icicle**.

Another long growing radish is **Chartier** or **Shepherd** which is a main crop summer variety. It is later than **Icicle** and of course unlike it in color. It grows roots probably 7 inches long, with the top projecting out of the ground and that portion projecting from the ground is a scarlet-rose in color, while the balance of the root under ground shades gradually from a rose color to pure white at its tip. The roots are unusually smooth, of a waxy appearance and this makes nothing less than a beautiful radish. Its flesh is pure white, crisp, tender and of fine flavor. A fine radish for bunching and keeps in good condition for a long time. Another radish known as a good summer type of the long kind is **White Strassburg** pure white in color, but growing considerably larger than **White Vienna** and a great deal larger than **Icicle**. It is crisp and tender in its smaller size and as it develops to a large size, even 2 inches in diameter it can be used by slicing, one of the best for that purpose if you want one of that kind.

Still another long and early radish is **Long Scarlet Short Top**, which grows about 6 inches in length, very smooth roots of a bright scarlet color, pure white flesh that is crisp, tender and fine flavored.

WINTER RADISH

We have two fine winter radishes, **Long Black Spanish** and **Rose China Winter**. The **Long Black Spanish** has black skin, but pure white flesh. It will grow 4 and 5 inches long and is a trifle hot in flavor. The **Rose China Winter** is a great favorite as it is very mild for a winter radish and a rosy-pink in color, with pure white flesh. It is used when 3 and 4 inches long and is about the same diameter from top to bottom, with a small tap root. Both of these kinds may be planted during July and August.

ORIENTAL RADISHES

The **Nerima** or **Mikado** radish comes from the land of **Agricultural Wonders**, Japan and China and will grow over 2 feet long and 2 to 3 inches in diameter holding its same diameter



Early Round Dark Red



Icicle

from top to bottom, therefore is easy to remove from the soil if planted on good soil. Its quality is claimed as good and will keep in storage for some time after being removed from the ground.

The **Giant Sakurajima** we have had experience with and find that the seed should be planted during July and August and in the fall you have a radish weighing about 15 pounds that may be used as you would turnips or other root vegetables. It is of no account as an early radish. It has a pleasing flavor and many of our best customers have taken a liking to it.

Tokinashi is a Japanese radish, 2 inches thick at the top and tapers in straight lines to a sharp point and about 15 inches long. It can be eaten however in a smaller size than this, and is pure white, crisp and of fine flavor, but of course not as mild as our domestic radishes. You no doubt would find it interesting to grow some of these radishes as novelties and as others have done, become quite attached to them.



Long Black Spanish

SQUASH.

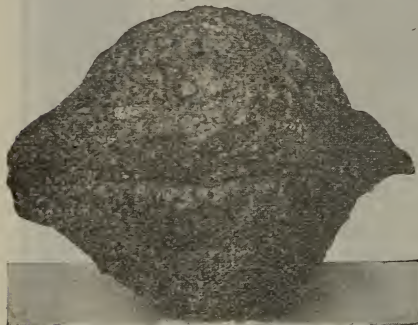
One ounce of seed will plant 15 hills of running kinds, 6 to 8 feet apart, or 40 hills of bush kinds 5 feet apart.

It has been thought that nothing could be had better in squash than the Hubbards, but **Delicious** is gaining so much in favor that many give it the preference over the Hubbards. **Delicious** squash has no superior for fineness of grain, dryness and rich flavor. The rind is uniformly green, very thin and the flesh very dark orange colored and cooks up dry and rich late in the fall as well as in the winter. They weigh from 5 to 10 pounds, are very good keepers and if you have never tried **Delicious** you certainly ought to do so.

Our Hubbard seed is produced in Michigan for the reason that it is more hardy and more sure to mature Hubbards in any



Delicious Squash



Chicago Warted Hubbard

part of the country we are liable to send it. The **Chicago Warted Hubbard** is the finest in the hard shell Hubbards. It is fine grained and thick meated, richly colored and cooks up dry with a fine flavor that you cannot forget. They have a rich green skin and set apart from one another on shelves in the cellar will keep all winter. If you fear the large warted Hubbard is a little late maturing for your section, **Bruns Improved Hubbard** will probably be safer for you to grow as it is 10 or 12 days earlier, gained through long and careful selection. It is similar in every way to the **Chicago Warted Hubbard**. If your season is considerably short for the Warted Hubbards, you can no doubt grow **Golden** or **Red Hubbard** which is, aside from color of skin, identical to the Warted Hubbard, and has the same dry, fine grained sweet flesh. They are however smaller, say one-third smaller than the green Warted Hubbard.

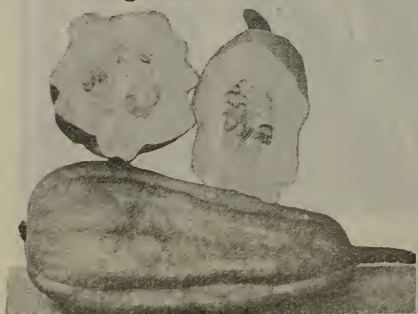
Boston Marrow is a fine and popular squash with a thin shell of bright orange color and yellow flesh, very sweet in flavor and especially recommended for pies and canning. Its shape is similar to the Hubbards, but is smooth skinned.

Mammoth Chili is the **Giant of Squashes**. It is oblong and very thick, with rather square ends, in shape resembling a pumpkin, but not ribbed. It has reached the enormous weight of 290 pounds and aside from growing for exhibition purposes it is valuable as a stock food, an enormous tonnage being grown to the acre. Its quality is very good, but of course not any comparison with the table varieties of squash.

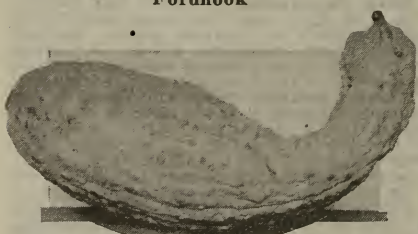
The earliest of the winter squashes is **Fordhook** which is a good keeper. The fruits are only 8 to 10 inches in length and grows straight, being thicker at the blossom end. The skin is very thin and light yellow in color, flesh very thick which cooks dry and is of unusually fine, sweet flavor.

Giant Summer Crookneck is an improvement over the old variety in size. Its skin is yellow, flesh deep golden color and is almost equal to the winter varieties in flavor and is the best of the summer squashes.

White Bush Scalloped can be grown within a small space, producing fruits 12 to 15 inches across, of uniform shape, flat and scalloped and of a pure white in color. It is the earliest of the squashes and of good quality that cooks up tender and sweet.



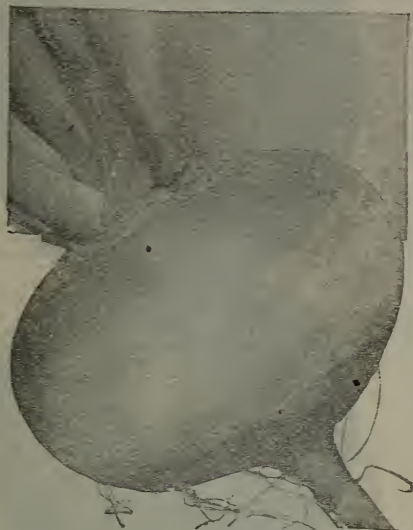
Fordhook



Golden Summer Crookneck

TURNIP

One ounce of seed will sow 125 feet of row, 2 lbs. per acre in drills, 3 lbs. per acre sown broadcast.



Purple Top Milan.

The early sowing of turnips should be more general in the home gardens. They can be sown as early as the ground can be worked and you will have them ready for use a week or so before new early potatoes are ready. Sow them in drills and thin out to 6 inches between plants and rows about 1 foot apart. Late turnips should be spaced about 12 inches both ways.

The very earliest turnip is **Early Purple Top Milan** with a bulb flat, of medium size, quite smooth and, fine quality, being fine grained and very sweet in flavor and will form good-sized bulbs from seven to eight weeks. The **Early White Milan** is pure white in color and thicker in form than the **Purple Top Milan** and just about as early as that variety. It is very smooth and the top has very few and small leaves. The flesh of both these **Milan** turnips is very white, tender and sweet and it should only be a matter of preference as far as color would be concerned. The **Early White Flat Dutch** is a fine early turnip, very smooth roots, pure white inside and out, tender and sweet. It is a very popular sort, especially in the South for early planting. These three are all fine flat top early turnips.

Early Snowball or **Six Weeks** is a pure white, very round turnip that is very tender, sweet and well flavored. It may not be quite as early as the three flat tops named above, except that you can use it when it is very small, about six weeks after planting.

Those kinds sown during July and August for winter use or as main crop varieties are **Purple Top Strap Leaf**, **Purple Top White Globe** and **Amber Globe**.

Purple Top White Globe in our estimation is the best for main crop. It is a handsome turnip in the colors being so distinct, show-

ing purple about one-third down from the top and the balance pure white. It is large, a great yielder, pure white flesh, tender and sweet and an excellent keeper. A variety that always sells on the market. **Purple Top Strap Leaf** is similar in its good qualities to the **Purple Top Globe** but is flattened in form, is an old reliable sort and will always be in good demand. **Amber Globe** is an excellent quality of turnip, but has yellow flesh which some believe is better flavored than the white. It is good in every particular.

ORIENTAL TURNIP

We have two of the best Japanese turnips which will be worthy of your trial. **Tokio Market** is to be sown in the spring and produces a flattened bulb larger than our domestic kinds. It is pure white and of good flavor, with fine grained flesh. **Shogoin Japanese Turnip** is a round growing kind of very large size, weighing from 8 to 10 pounds. It is pure white in color with crisp flesh and excellent in flavor. It is good for the table and also for stock feeding.

RUTABAGAS

The **Rutabagas** grow larger and coarser than the turnips, but some prefer them to the turnip for table use. **American Purple Top** is a fine variety for stock feeding as it is a heavy yielder, and is also a good table variety. It produces large solid roots of a purplish upper color and deep yellow below the soil, with the flesh a rich yellow color. It has a good flavor and is a good keeper and one of the very best for stock feeding. **Large White Swede** grows bulbs of a large size with creamy white skin, with flesh hard, crisp and of a fine flavor. It is immensely productive and good for stock feeding.



Purple Top White Globe.

TOMATOES

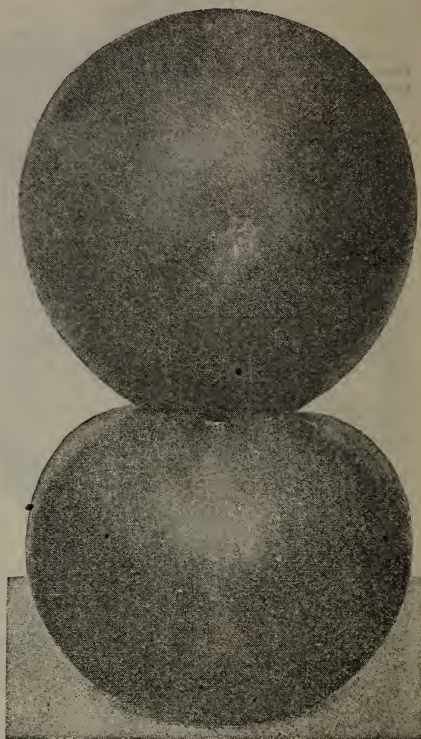
One ounce of seed will produce about 2500 plants.

To produce stocky plants you should have Northern grown tomato seed. Strong stocky plants stand the drought better and are not subject to blight, yield more in quantity and better in quality and for this reason we grow our tomato seed in Michigan to produce stronger plants than will Iowa grown seed.

There is great value in the early tomato, but the tomato of quality that takes first place in beauty of form and color, has as much if not more value. Washington Beauty Tomato shown on the front cover of this catalog, is well explained in a report from one of our customers, who is a very careful and very successful truck grower of long experience. He is one of the staple kind, with whom it is not "love at first sight" when it comes to giving preference to a variety over some variety he has been growing for some time, but after growing this variety as a side crop for two years he reports as follows:

"Regarding the Washington Beauty tomato, I am now able to report after growing it as a side crop for two seasons, that I am entirely satisfied that it is a fixed variety as I can see no change in it from one season to another and am especially pleased with its color which is different than anything I have had in tomatoes and the color runs the same on all those I grew this season.

"Next season I expect to grow quite a field of them, but will not depend upon it for my earliest tomato, but grow it as a crop to follow my earliest. I have wondered what gave it the color it has, as it is so deep red that it makes other kinds look as if they had faded out and I think you have a wonderful good thing in this color. It is my opinion it will not run quite as heavy in yield as the Stone tomato, but with me it is always quality as I have found that is what counts in my business, but even at that the difference in yield is not big enough to talk about."

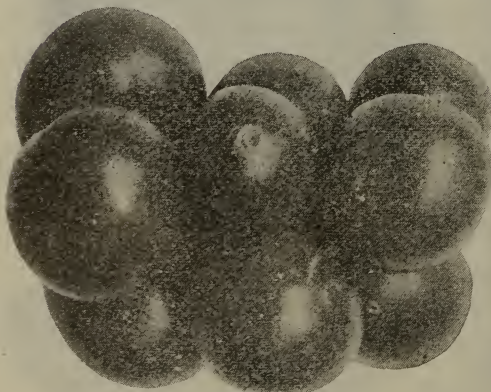


Washington Beauty

We realize that we do have a good thing in the Washington Beauty Tomato especially as it has an unusual color along with its perfect shape of fruit, uniform in size and so round in form, without any creases that it is impossible for it to crack open unless it is absolutely dead ripe and long beyond the time you would naturally use them. It has a thick skin that makes it a superb tomato for boxing for long shipments, and in every respect cannot be excelled as a main crop variety. The plants grow strong and robust and stand drought and blight remarkably well, in fact have never had it blight. In our trial grounds we have had many different kinds of tomatoes growing, but none can approach this in color, which is not a glossy red, but is a glowing dull-finished deep red that made a great hit with everyone that had ever seen one of the fruits. You should certainly get a start of this extraordinary tomato, whether you are a market gardener, shipper or gardening just for home use.

FIRST AND SECOND EARLY KINDS

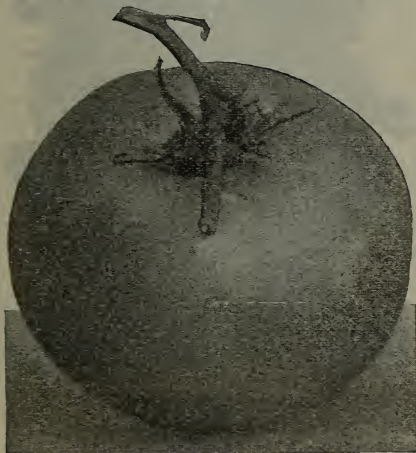
Perhaps the very earliest is Earliana but will not bear throughout the season, its season of bearing being about four weeks. The plants are heavily jointed, bearing fruits 3 inches in diameter, round and smooth, of delightful quality, heavy for their size of a bright red color. June Pink is called the pink Earliana as it is identical to that variety in all habits of growth except it is more of a pink color than bright red. Our stock of Benny Best will follow Earliana in earliness and is very round in form, ripening with an



Earliana

TOMATOES--Continued

even color to the stem, fruit about the size of Earliana but an intense scarlet in color, with foliage of the plant unusually heavy. **Early Acme** is a valuable variety with round medium sized fruits, flattened at the blow end, fine in flavor and a good main crop variety. Plants very vigorous, color of fruit a glossy red with purplish tinge and in maturity follows the earliest kinds. **New Stone** known as the King of the Red Tomatoes, is the most popular main crop tomato, demanded by many of the canners. Its solidity and good flavor are known everywhere, as well as its smooth and perfect shape and there is no better shipper and in short is an ideal tomato for any purpose. **Select Beauty** produces quite large fruits of good form of a glossy crimson-purple shade and growing in clusters, very firm dished with few seeds, a tough skin and a good shipper and keeps for an unusually long time after picking. **Dwarf Champion** is quite early as the bush is very dwarf when producing fruit, which is produced near the main stalk. Is distinct from others, having a thick, sharply cut leaf and the fruit a purplish-pink, very attractive in color and form and of superb quality. Plants can be set as close as 30 inches each way and seldom need support. It is medium early and ideal for the small garden.



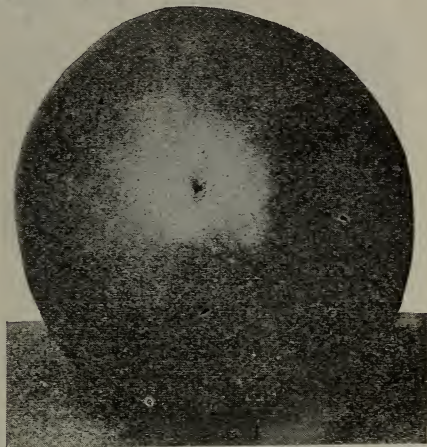
Golden Queen

As second earliest **Livingston's Globe** is a superb variety, fruit round and smooth, fine flavor, few seeds and grow in great quantities and a reliable main crop variety, especially in the South for shipping North very early. Retains the same sized fruits throughout the season and, always takes the top price on the market. **Chalk's Early Jewel** is a very handsome red tomato with rather thin skin, but at that is a good shipper. About two weeks later than Earliana but a heavier bearer and the fruits are larger, of fine flavor and always sure to ripen its fruit to the stem without any green core.

The **Best Yellow Tomato** is **Golden Queen**, growing fruits perfect in form of a light yellow color, very mild in flavor since it has not the acid taste of the red tomatoes. On this account is not good for preserving but for those desiring a mild flavored tomato it is the best. Makes a handsome combination when served at the table with the red tomatoes.

LATE VARIETIES

Red Rock requires about 110 days to ripen from time of planting the seed. Fruit is solid and of a beautiful red color, an excellent shipper, very fine flavored, fruit never sun burned as the



Select Beauty

foliage is very heavy. The fruit is of large size but not as large as **Ponderosa**. **Perfection** is a desirable late variety, a bright crimson in color, ripening a little ahead of **Ponderosa**, and seems to succeed everywhere. **Ponderosa** is the largest growing tomato in cultivation, sold under different names, such as **Mammoth**, **Beefsteak**, **Crimson Cushion** and other names bestowed upon it.

The plants are large and require considerable space and good support. The very large fruit is solid with very few seeds and good seed produce fruit of fine form, excellent for exhibition purposes. We have very true stock of this variety. **Perfection** is a large fruited late tomato that will ripen a little ahead of **Ponderosa**. It is fine in form and quality and succeeds everywhere. Fruits are round in form, attractive red in color and of excellent flavor.

SMALL PRESERVING TOMATOES

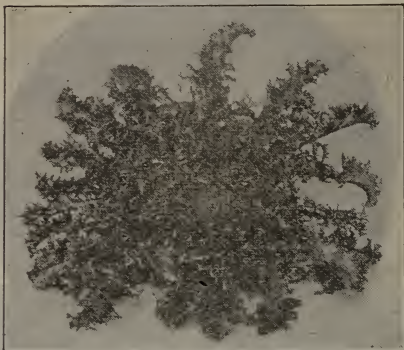
These small fruited kinds are exceedingly prolific and two or three plants will produce an abundance. **Red Cherry** is the small, perfectly round fruit about one inch in diameter.

Yellow Pear is a pear shaped fruit about 2 inches in length. These different kinds all grow in clusters and any of them are good in quality, the same as the larger fruited kinds.



Perfection

ODDS AND ENDS FOR THE GARDEN

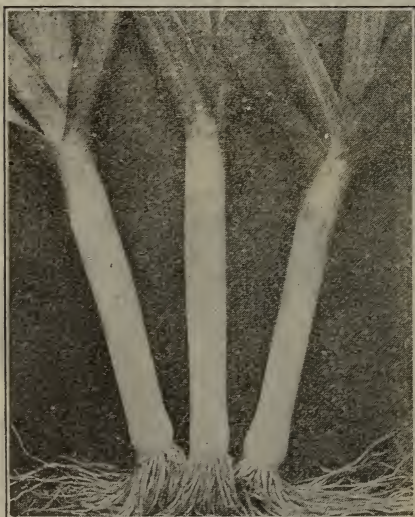


Endive.

Gourds. Our collections of these contains many interesting shapes and colors, both domestic and imported varieties, and gives many shapes that can be useful when made into dippers, hanging baskets and put to other uses. All shapes imaginable will be found in a patch planted to an ounce of this seed. Some of the seeds are large and it is therefore better to plant an ounce of the seed in order to get them all.

Kale. This is a popular boiling green for fall, winter and early spring. The plant is hardy and the seed may be sown any time during the spring, summer or fall. Cut the leaves when about 6 inches long and their flavor will be improved by freezing. It is a very healthful food. **Dwarf Kale** is a low growing kind and the **Tall or Scotch Kale** grows tall and is a very ornamental plant. In ordering, state which you wish.

Leeks. They resemble the onion in flavor, but do not have a bulb, growing a long, straight root similar to the spring onions.

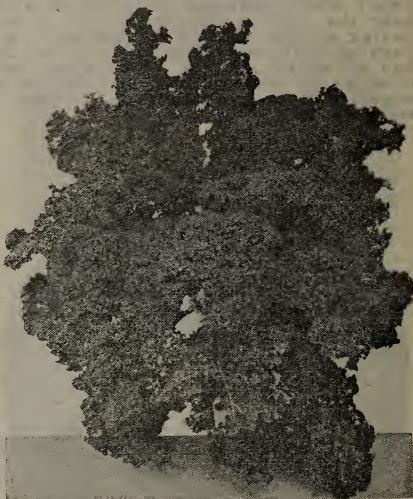


Leeks.

Brussels Sprouts. This is called Miniature Cabbage, as it sends up a long, straight stalk, on which are closely set little heads that resemble a complete small cabbage. They have a mild cabbage flavor and excellent when boiled like cabbage, or can be used the same as head lettuce.

Cress or Pepper Grass has a fine curled leaf and as they run to seed readily, several sowings should be made to have a fresh supply. It is used for garnishing or in flavoring salads and very fine for this purpose.

Endive. The **Green Curled** variety is used as a salad during the cool fall and winter months. The finely cut and frilled leaves are very ornamental, and have a pleasant, somewhat peppery flavor. By holding the plants together with a soft twine, they will blanch out at the center to a beautiful yellow.



Kale, Tall Scotch.

American Flag is the best variety of the domestic leek, with which many of you are familiar.

Nebuka is an imported Japanese leek, which is claimed to be very fine in flavor.

Mustard. **White Mustard** is grown for its leaves, which are rather mild and are used for greens. **Black Mustard** is stronger than the white, both in leaves and seeds, and is grown for medicinal purposes. **Giant Southern Curled** is the best for greens and should be in every garden for that purpose, for it is as easy to grow as the other kinds.

Kohl Rabi. The **Early White Vienna** is the best variety and is called by some "turnip rooted cabbage." It has a turnip-cabbage flavor, the edible portion being the large bulb that forms on the stem above the ground.

Okra. **Early Dwarf White** is the best variety and makes a strong plant that furnishes long pointed pods that are excellent if picked when green and pickled.

ODDS AND ENDS FOR THE GARDEN

Salsify. *Mammoth Sandwich Island* is the best variety, called the Vegetable Oyster, as it resembles the oyster in taste. They are ready for the table after freezing and should be taken from the ground during the winter or left until spring if given some covering to keep them from continued freezing and thawing.

Chinese Greens "Santosi." It is a variety of Chinese cabbage used for greens. It grows compact like celery and has a fine flavor and very mild. Can be sown in the spring or later, about August 1st, and is excellent when boiled with meat or fine for soup or salad making.

Japanese White Melon "Shirouri." A very interesting vegetable growing 10 inches in length and 4 or 5 inches thick and resembling a large cucumber. Has pure white flesh, in flavor resembling a muskmelon and better than any cucumber. They should be used as a cucumber, either green or pickled.

Sunflower (Mammoth Russian). Around the chicken yard and in the corners is a good place to sow a few of these seeds that will produce very large heads and much chicken feed of real value. When the heads are ripe they may be thrown in to the chickens and they will do their own shelling and it is fine feed for laying hens and growing fowls.

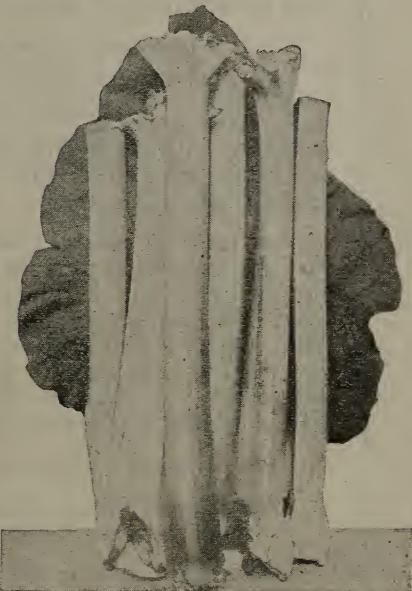
Parsley. While there are three or four kinds of parsley, we have found **Champion Moss Curled** the best and most reliable in the list. Our strain produces very crinkled and heavy moss-like foliage that cannot be excelled for garnishing. It is always tender and of fine flavor.

Crimson Giant Rhubarb. Rhubarb is our first vegetable in the spring and one of the most healthful, therefore every garden should have a few plants started. You can start it with the seed and have it to use the following spring. The Giant Crimson Winter is absolutely the best of any kinds, as the skin is so thin that it is hardly necessary to remove it before cooking. It has a beautiful color that makes very attractive sauce and does not have as rank, sour flavor as many common kinds have.

Peanuts. The *Large Virginia Bunch Peanut* is the best to grow and can be grown as far north as central Minnesota and South Dakota. It is planted in rows 3 to 4 feet apart, dropping the nuts, which should be carefully shelled, about 6 inches in the row. The plants are quite attractive in color, being striped green and white leaves, and they are as easy to grow as potatoes.



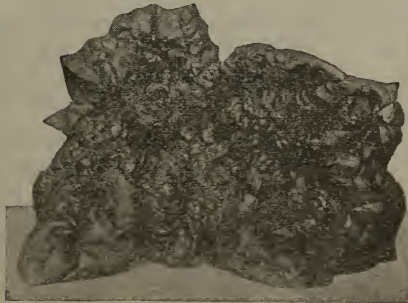
Mustard, Southern Curled.



Crimson Giant Rhubarb.



Dwarf White Okra.



Spinach.

Spinach. *Bloodsdaile* or *Savoy Leaved* has a crinkled leaf, handsome in appearance and of fine quality. *Round Thick Leaved* is a popular variety, always sure to give satisfaction, and keeps producing leaves all through the season.

THE SEEDSMAN'S CREED

The first man, Adam, was a gardener and no fitter employment has been devised for man or woman. It pays in content, calm thoughts, for when one stoops to work the earth, he rises to believe in the great simple truths of life.

The true seedsman is he who started out with the love of nature in his heart and untiring efforts to learn the secrets of old Mother Earth and to know that wherever there is Earth there is the means of life, but that some plants may be raised in the cool damp days of early spring, others love June and still others come to maturity only in the hot days of August or the frosts of October.

Thus runs the message of the true seedsman—how to prepare the soil—what to plant under certain conditions—how to plot the beds—how to rotate the crops, and then—those things apart from money-making—the flowers that grow to tell us of Him, the artist and many a secret of peace that you can find nowhere else. So to give these nature secrets and give them well, comes very near to—living in a house by the side of the road and being a friend to man.

We therefore believe in our business.

We believe it is one of the most important businesses in which a man can be engaged.

We believe that in selling the seeds that grow the crops, which feed the world, is a business of which we may be justly proud.

We believe furthermore, that our business is full of responsibilities, as the selling of good pure seeds of high germination, is to do unto others as we would that they should do unto us.

We believe that only in this way can we create and hold the good will of our customers, that there will continue to be a beaten path to our door.

WASHINGTON, IOWA

tion to substitute equal or better in the nearest we can supply?

Total = \$.....

Do not write in this space

PRICE LIST OF GARDEN SEED

Postpaid at Prices Listed

The following prices bring all garden seed to your door postage paid. Look through the list from A to Z and see that you are not overlooking anything you will need for the coming 1920 garden that should be made as profitable as possible.

SEND PAYMENT by P. O. or express money order, draft, personal check, if your account is sufficient. If currency is sent register the letter. U. S. postage stamps will be accepted for small amounts but we cannot accept Canadian or foreign stamps in payment.

SAFE ARRIVAL OF SEED IS GUARANTEED and you are allowed examination and testing. We use the utmost precaution to have all our seed clean, fresh, pure and true to name and of strong germination but we cannot guarantee crops, and if seed is not accepted on this condition they are at once to be returned and your money will be refunded.

ASPARAGUS—Page 1

	Pkt.	Oz.	¼ Lb.	½ Lb.	Lb.
Bonvalett's Giant—Large white, tender, very early.....	\$.10	\$.15	\$.50	\$.80	\$. . .
Columbian Mammoth—Very large, light green.....	.05	.10	.35	.60	....
Conover's Colossal—Large, rich green, very tender.....	.05	.10	.35	.60	....
Palmetto—Medium small, rich green, tender.....	.05	.10	.35	.60	....

BEANS—Pages 7-10

Bruns All Seasons Green Pod—Tender and fine quality.....	.05	....	.20	.30	.55
Improved Early Red Valentine—Earliest green pod.....	.05	....	.20	.30	.55
Black Valentine—Medium early.....	.05	....	.20	.30	.55
Burpee's Stringless—Heavy bearer all season.....	.05	....	.20	.30	.55
Long Yellow Six Weeks—Best flat green pod.....	.05	....	.20	.30	.55
Refugee or 1,000 to 1—Fine late sort.....	.05	....	.20	.30	.55
Red Kidney—Fine succotash bean.....	.05	....	.20	.30	.55
Improved Tree—Fine white for shelling.....	.05	....	.20	.25	.45
Choice Navy—Best of the White Navy.....	.05	....	.15	.25	.45
Bruns Rust Proof Wax—Our very best yellow pod.....	.10	....	.25	.40	.65
Golden Wax—Always reliable, fine stock.....	.10	....	.25	.45	.65
Wardwell's Kidney Wax—Stringless flat pod, tender.....	.05	....	.20	.35	.60
Curries Rust Proof—A fine black wax.....	.05	....	.20	.35	.50
Davis White Wax—Fine shelling white bean.....	.05	....	.20	.35	.50
Kentucky Wonder—Fine green pod pole bean.....	.05	....	.15	.25	.40
Golden Cluster Wax—Good yielder pole bean.....	.05	....	.15	.25	.45
Lazy Wife Pole—White seeded pole bean.....	.05	....	.25	.40	.65
Speckled Cut Short—Fine corn bean.....	.05	....	.15	.25	.45
King of the Garden Pole Lima—Best pole lima.....	.05	....	.15	.25	.45
Henderson's Bush Lima—Small prolific bush lima.....	.05	....	.15	.25	.45
Bruns Bush Lima—Our best bush lima.....	.10	....	.25	.40	.65
Burpee's Improved Bush Lima—Good yielder, reliable.....	.05	....	.20	.35	.60

BEETS—Pages 11-12

Bruns Early Market—Best bunching beet.....	.10	.25	.75	1.30	2.25
Early Egyptian—Early and fine quality.....	.05	.15	.45	.75	1.40
Edmand's Extra Early—Dark Red, fine quality.....	.05	.15	.45	.75	1.40
Detroit Dark Red—Dark Red canning sort.....	.05	.15	.45	.75	1.40
Eclipse—Very early fine quality.....	.05	.15	.45	.75	1.40
Improved Long Red—Medium late slicing beet.....	.05	.15	.45	.75	1.40
Crimson Globe—Large growing, but tender.....	.05	.15	.45	.75	1.40
Bruns Early Blood Turnip—Earliest home garden beet.....	.10	.25	.75	1.25	2.25
Swiss Chard—Tops only used for greens.....	.05	.15	.45	.75	1.40
Mammoth Long Red Mangel—The largest stock beet.....	.05	.15	.45	.75	1.40
Golden Tankard—Thick rooted stock beet.....	.05	.15	.45	.75	1.40
Half Sugar Mangel—The sweetest large mangel.....	.05	.15	.45	.75	1.40
Danish Sludstrup—Rich stock feed mangel.....	.05	.15	.45	.75	1.40
Vilmorins Improved Sugar—White fleshed and rich.....	.05	.20	.60	1.00	1.75
Klein Wanzleben—Very large and productive.....	.05	.20	.60	1.00	1.75

CELERY—Page 13

Golden Self Blanching—Dwarf and fine quality.....	.10	.35	1.00	1.75	....
White Plume—A standard sort.....	.05	.15	.45	.80	....
Giant Pascal—Very large, but tender.....	.05	.15	.45	.80	....

CARROT—Page 13

Golden Beauty—Our very best carrot.....	.10	.30	1.00	1.75	3.00
Chantenay—Medium size, fine quality.....	.05	.15	.50	.80	1.25
Ohxheart—Stump rooted, good flavor.....	.05	.15	.50	.80	1.25
Scarlet Horn—Dark in color, fine flavor.....	.05	.15	.50	.80	1.25
Danvers Half Long—A fine popular variety.....	.05	.15	.50	.80	1.25
Improved Long Orange—Largest of table Carrots.....	.05	.15	.50	.80	1.25
Large White Belgian—For stock feeding only.....	.05	.15	.50	.80	1.25
Kintoki (Japanese)—A novelty of good quality.....	.05	.20	.70	....	....

THE BRUNS SEED COMPANY, WASHINGTON, IOWA

CABBAGE—Pages 14-15

	Pkt.	Oz.	¼ Lb.	½ Lb.	Lb.
Bruns Early Jersey Wakefield—Best of the Wakefields.....	.10	.60	2.00	3.50	.....
Bruns Early Copenhagen—An improved type.....	.10	.40	1.25	2.25	.....
Glory of Enkhuisen—Very fine and early.....	.05	.30	1.00	1.75	.....
Early Winningstadt—Fine early pointed head.....	.05	.30	1.00	1.75	.....
Bruns Early Flat Dutch—Best Second Early.....	.10	.40	1.25	2.25	.....
Charleston Wakefield—A large Wakefield type.....	.05	.30	1.00	1.75	.....
Early Summer—Fine medium early.....	.05	.30	1.00	1.75	.....
All Head Early—A very sure header.....	.05	.30	1.00	1.75	.....
Succession—Good for early or late.....	.05	.30	1.00	1.75	.....
Bruns Premium Late Flat Dutch—Finest for late.....	.10	.40	1.25	2.25	.....
Danish Ballhead—The very best keeper.....	.05	.30	1.00	1.75	.....
Autumn King (World Beater)—The largest of the late.....	.05	.30	1.00	1.75	.....
Surthead—Very reliable header.....	.05	.30	1.00	1.75	.....
Chinese (Paoing)—Mild, grows 9 lbs. weight.....	.05	.30	1.00	1.75	.....
Chinese (Peking)—Mild, grows 12 lbs. weight.....	.05	.30	1.00	1.75	.....

CAULIFLOWER—Page 16

Barly Snowball—The very finest cauliflower.....	.25	1.25	2.25	.....	.....
Dwarf Early Erfurt—Very early and dwarf.....	.25	1.25	2.25	.....	.....
Dry Weather—Succeeds in hot weather.....	.25	1.25	2.25	.....	.....

CUCUMBER—Pages 16-17

Bruns Evergreen White Spine—Attractive shape.....	.10	.25	.75	1.25	2.25
Davis Perfect—Handsome and fine quality.....	.05	.20	.65	1.00	1.75
Cool & Crisp—Brittle and tender.....	.05	.15	.50	.80	1.50
Arlington White Spine—Fine forcing variety.....	.05	.15	.50	.80	1.50
Early Fortune—Very early variety.....	.05	.15	.50	.80	1.50
Early Cluster—Very prolific.....	.05	.15	.50	.80	1.50
Improved Long Green—Fine for slicing.....	.05	.15	.50	.80	1.50
Bruns Chicago Pickle—Most popular pickling.....	.05	.20	.65	1.00	1.75
Early Russian—Very earliest of all.....	.05	.15	.50	.80	1.50
Japanese Climbing—True vining variety.....	.05	.15	.50	.80	1.50
Fushinari (Japanese)—A very worthy novelty.....	.05	.15	.50	.80	.....

CORN (Pop)—Page 29

Australian Hulless—Short thick ear.....	.05	.....	.15	.25	.40
Improved White Rice—Very fine strain.....	.05	.....	.10	.20	.30
Baby Golden—Our finest quality.....	.05	.....	.15	.25	.40

CORN (Sweet)—Pages 18-19

White Cob Cory—Very early and reliable.....	.05	.....	.20	.30	.50
Golden Bantam—Earliest yellow.....	.05	.....	.20	.30	.50
Peep O'Day—Early and good size.....	.05	.....	.20	.30	.50
Early Adams—Best for the South.....	.05	.....	.20	.30	.50
Black Mexican—Very sweet quality.....	.05	.....	.20	.30	.50
Early Minnesota—Early, good for North.....	.05	.....	.20	.30	.50
Early Champion—Early large size.....	.05	.....	.20	.30	.50
Stowell's Evergreen—Best late straight rowed.....	.05	.....	.20	.30	.50
Country Gentleman—Sweetest of the late.....	.05	.....	.20	.30	.50

EGG PLANT—Page 28

Black Beauty—Our best variety.....	.10	.40	1.50	.....	.....
New York Improved Purple—Large, good quality.....	.10	.40	1.50	.....	.....
Chinese Wonder—Chinese, good novelty.....	.10	.40	1.50	.....	.....
Yamanasu—Japanese, good novelty.....	.10	.40	1.50	.....	.....

LETTUCE—Pages 20-21

Early Curled Simpson—Fine loose leaf, curly.....	.05	.15	.50	.80	.....
Black Seeded Simpson—Large curly loose head.....	.05	.15	.50	.80	.....
Grand Rapids—Finest forcing, loose H.....	.05	.15	.50	.80	1.50
Bruns Improved Hanson—Fine curly header.....	.05	.15	.50	.80	.....
Early Prizehead—Tender, copper tinged.....	.05	.15	.50	.80	.....
All Seasons—For successive planting.....	.05	.15	.50	.80	.....
California Cream Butter—Large rich yellow head.....	.05	.15	.50	.80	.....
May King—Successful anywhere.....	.05	.15	.50	.80	.....
Bruns Big Boston—Largest heading sort.....	.05	.15	.50	.80	.....

MUSK MELON—Pages 22-23

Emerald Gem—Yellow flesh, early.....	.05	.15	.50	.80	.....
Paul Rose or Petosky—Handsome, good quality.....	.05	.15	.50	.80	.....
Osage—Popular everywhere.....	.05	.15	.50	.80	.....
Bruns Earliest—Earliest yellow flesh.....	.05	.15	.50	.80	.....
Banana—Small early yellow flesh.....	.05	.15	.50	.80	.....
Honey Dew—Sweet green flesh, new.....	.10	.20	.65	1.00	.....
Rocky Ford—Handy serving size.....	.05	.15	.50	.80	.....
Bruns Netted Rock—Handsome green flesh.....	.10	.20	.65	1.00	.....
Early Hackensack—Largest green fleshed.....	.05	.15	.50	.80	.....
Bruns Green & Gold—Our very finest melon.....	.10	.30	1.00	1.75	.....

WATER MELON—Pages 24-25

	Pkt.	Oz.	¼ Lb.	½ Lb.	Lb.
Bruna Early Universal—Early home garden melon.....	.05	.10	.35	.65	1.25
Sweetheart—Tender and very sweet.....	.05	.10	.35	.65	1.25
Harris Early—Early round fine quality.....	.05	.10	.35	.65	1.25
Fordhook Early—Popular Eastern melon.....	.05	.10	.35	.65	1.25
Cole's Early—Short, round, good quality.....	.05	.10	.35	.65	1.25
Iceberg—Good shipper, southern type.....	.05	.10	.35	.65	1.25
Tom Watson—Finest commercial melon.....	.05	.10	.35	.65	1.25
Kleckley Sweets—Fine for home garden.....	.05	.10	.35	.65	1.25
Monte Cristo—Same as Kleckley Sweets.....	.05	.10	.35	.65	1.25
Alabama Sweets—Popular in the South.....	.05	.10	.35	.65	1.25
Florida Favorite—Very sweet in quality.....	.05	.10	.35	.65	1.25
Dixie—Good Southern melon.....	.05	.15	.45	.75	1.25
Halbert Honey—Very sweet garden melon.....	.05	.15	.45	.75	1.25
McIvers Sugar—Very large and very sweet.....	.05	.10	.35	.65	1.25
Wonderful Sugar—Improved type McIvers.....	.05	.10	.35	.65	1.25
Georgia Rattlesnake—Large long striped.....	.05	.10	.35	.65	1.25
Angels Kiss—Delicate, sweet quality.....	.05	.10	.35	.65	1.25

ONIONS—Pages 26-27

White Portugal Silver Skin—Fine quality white.....	.10	.35	1.25	2.25	4.25
Australian Brown—Early heavy cropper.....	.05	.25	1.00	1.75	3.25
Priestaker—Special stock, large, mild.....	.10	.35	1.25	2.25	4.25
Yellow Globe Danvers—Good market, light yellow.....	.05	.25	.90	1.70	3.25
Large Red Wethersfield—Very profitable cropper.....	.05	.25	.90	1.70	3.25
Silver King—Large, fine white, mild.....	.10	.35	1.25	2.25	4.25
Southport Red—Big yielder, fine keeper.....	.05	.30	1.00	1.75	3.25
Southport White—Large cropper, white, mild.....	.05	.30	1.00	1.75	3.25
Yellow Dutch, Strasburg—Successful light yellow.....	.05	.30	1.00	1.75	3.25

ONION SETS—Page 27

		Lb.	Pk.	Bu.
White Bottom—Best for bunching.....		.40	1.50	4.50
Red Bottom—Possibly earliest set.....		.35	1.75	5.00
Yellow Bottom—Very tender quality, mild.....		.30	1.50	4.50

PARSNIP—Page 28

	Pkt.	Oz.	¼ Lb.	½ Lb.	Lb.
Long Smooth Hollow Crown—Old reliable kind.....	.05	.10	.35	.60	....
Guernsey—Improved variety.....	.05	.10	.35	.60	....

PEAS—Pages 30-31

Bruna Earliest—Very earliest garden pea.....	.10	....	.30	.50	.80
Alaska—Good early market sort.....	.05	....	.20	.35	.60
American Wonder—Most dwarf fine quality.....	.05	....	.20	.35	.60
Premium Gem—Early and quite dwarf.....	.05	....	.20	.35	.60
Little Marvel—Rapid grower, dwarf, sweet.....	.05	....	.20	.35	.60
Laxtonian—Large podded dwarf.....	.10	....	.25	.40	.70

PEAS—Pages 30-31

Nott's Excelsior—Very prolific long bearer.....	.05	....	.20	.35	.60
Stratagem—Medium late good variety.....	.05	....	.20	.35	.60
Gradus or Prosperity—Fine market sort.....	.05	....	.20	.35	.60
Advancer—Tall growing, very fine.....	.05	....	.20	.35	.60
Thomas Laxton—Taller than Laxtonian.....	.05	....	.20	.35	.60
Bruna Telephone—Tall, very prolific.....	.10	....	.25	.40	.70
Champion of England—Tallest growing.....	.05	....	.20	.35	.60

PEPPER—Page 28

Chinese Giant—Very large and mild.....	.10	.60	2.00	....	....
Ruby King—Good stuffing pepper.....	.10	.60	2.00	....	....
Bell or Bull Nose—Fine mild flavor.....	.10	.60	2.25	....	....
Red Chile—Quite hot in flavor.....	.10	.60	2.00	....	....
Long Red Cayenne—Very hot flavor.....	.10	.60	2.00	....	....

PUMPKIN—Page 29

Connecticut Field—Ordinary cow pumpkin.....	.05	.15	.35	.60	1.00
Kentucky Field—Good pie or field pumpkin.....	.05	.15	.40	.70	1.25
Striped Cushaw—Fine quality pie pumpkin.....	.05	.20	.50	.80	....
King of the Mammoth—The largest pumpkin grown.....	.05	.15	.40	.70	1.25
Japanese Pie—Fine small sugar for pies.....	.05	.15	.40	.70	1.25

POP CORN—Page 31

	Pkt.	¼ Lb.	Lb.
Australian Hullless.....	.05	.15	.35
Improved White Rice.....	.05	.15	.35
Baby Golden.....	.05	.15	.35

RADISH—Pages 32-33

Bruna Sparkler—Most handsome, finest quality.....	.10	.30	.80	1.40	....
Early Scarlet Turnip, White Tipped—Popular for markets.....	.05	.20	.70	1.25	....
French Breakfast—Fine when small size.....	.05	.20	.70	1.25	....
Early Scarlet Turnip—Earliest round red.....	.05	.20	.70	1.25	....
Early Scarlet Globe—Earliest globe shaped.....	.05	.20	.70	1.25	....
Early Round Dark Red—Dark red, fine quality.....	.05	.25	.80	1.40	....
Crimson Giant Foreing—Large size, not pithy.....	.10	.30	.80	1.40	....
White Icicle—One of the earliest whites.....	.05	.20	.70	1.25	....
Long White Vienna—Similar to Icicle.....	.05	.20	.70	1.25	....
Charlier or Shepherd—Long red, good quality.....	.05	.20	.70	1.25	....
White Strasburg—Long white, very mild.....	.05	.20	.70	1.25	....

RADISH—Pages 32-33—Continued

	Pkt.	Oz.	¼ Lb.	½ Lb.	Lb.
Long Scarlet Short Top—Tender and good seller.....	.05	.20	.70	1.25	....
Long Black Spanish (Winter)—Black skin, white flesh.....	.05	.20	.70	....	....
Rosa China Winter (Winter)—Handsome red winter radish.....	.05	.20	.70	....	....
Nerima or Mikado (Oriental)—Grows long and slender.....	.05	.30	....	....	....
Giant Sakurijima (Oriental)—To be sown July 1st.....	.05	.35	....	....	....
Tokinashi (Japanese)—Grows two inches thick.....	.05	.35	....	....	....

SQUASH—Page 34

Delicious—Finest quality squash.....	.10	.25	.60	1.00	1.75
Chicago Warted Hubbard—Hard shelled and delicious.....	.05	.20	.50	.90	1.60
Bruns Improved Early Hubbard—Earlier than Chicago.....	.05	.25	.55	1.00	....
Boston Marrow—Good for late fall use.....	.05	.20	.60	1.00	....
Mammoth Chili—Large, of fine quality.....	.10	.30	.80	1.40	....
Fordhook—A late fall variety.....	.05	.25	.60	1.00	....
Giant Summer Crookneck—The best summer squash.....	.05	.20	.60	1.00	....
White Bush Scalloped—Very earliest summer.....	.05	.20	.60	1.00	....

TURNIP—Page 35

Early Purple Top Milan—Earliest flat variety.....	.05	.20	.65	1.00	1.75
Early White Milan—Best early pure white.....	.05	.20	.65	1.00	1.75
Early White Flat Dutch—Fine grained, sweet.....	.05	.15	.40	.70	1.25
Early Snowball Six Weeks—Round, white and sweet.....	.05	.10	.35	.60	1.00
Purple Top Strap Leaf—Fine table quality.....	.05	.10	.35	.60	1.00
Purple Top White Globe—Unsurpassed by none.....	.05	.15	.45	.80	1.50
Amber Globe—Best quality yellow.....	.05	.10	.35	.60	1.00
Tokyo (Japanese)—A good novelty sort.....	.05	.15	.40	....	....
Shogoin (Japanese)—Large round white type.....	.05	.15	.40	....	....

RUTABAGAS—Page 35

American Purple Top—Very profitable, good quality.....	.05	.15	.45	.80	1.50
Large White Swede—Good for table or stock.....	.05	.15	.45	.80	1.50

TOMATOES—Pages 36-37

Washington Beauty—Our very best in quality.....	.10	.50	1.75	3.25	....
Earlana—Reliable early garden sort.....	.05	.35	1.25	2.25	....
June Pink—Early light pink color.....	.05	.35	1.25	2.25	....
Bonny Best—Medium small, very early.....	.05	.35	1.25	2.25	....
Early Acme—Main crop variety, prolific.....	.05	.35	1.25	2.25	....
New Stone—Very popular main crop.....	.05	.35	1.25	2.25	....
Select Beauty—Very smooth, good form.....	.05	.40	1.40	2.50	....
Dwarf Champion—Tree like growth, fine fruit.....	.10	.45	1.50	2.75	....
Livingston's Globe—Old Reliable standard.....	.05	.35	1.25	2.25	....
Chalk's Early Jewel—Fine quality, very prolific.....	.05	.35	1.25	2.25	....
Golden Queen—Very best, mild, yellow.....	.05	.30	1.00	1.80	....
Red Rock—Very solid fruit, good yielder.....	.05	.35	1.25	2.25	....
Perfection—Unusually hardy and prolific.....	.05	.35	1.25	2.25	....
Ponderosa—Largest tomato grown.....	.10	.40	1.40	2.60	....
Red Cherry—Small, round, preserving.....	.05	.35	1.25	....	....
Yellow Pear—Small, yellow, pear-shaped.....	.05	.35	1.25	....	....

ODDS AND ENDS FOR THE GARDEN—Pages 38-39

BRUSSELS SPROUTS—Like small miniature cabbage.....	.05	.20	.75	....	....
CRESS OR PEPPER GRASS—Grown for flavoring, etc.....	.05	.20	.75	....	....
ENDIVE—Grown for cooking greens.....	.05	.15	.45	....	....
GOURDS—All shapes, colors and sizes.....	.05	.10	.35	....	....
GREENS (Japanese)—Fine flavored cooking green.....	.05	.25	.90	....	....
KALE (Dwarf or Tall)—Used for greens.....	.05	.25	.90	....	....
KOHL RABI—Turnip flavored vegetable.....	.05	.20	.75	....	....
LEEKs (Long white)—Roots similar to young onions.....	.05	.20	.75	....	....
MESTARD (White, Black or Southern Curled).....	.05	.10	.35	....	....
OKRA (White Velvet)—Pods of plant are pickled.....	.05	.10	.30	....	....
SALSIFY (Mammoth Sandwich Island)—Vegetable Oyster..	.05	.30	1.00	....	....
SPINACH (Blossomsdale or Round Thick Leaved).....	.05	.15	.50	.90	....
LAWN GRASS—Finest mixture.....	...	...	.20	.35	.50

WE HAVE PLANNED A GARDEN FOR YOU

NOT SAYING THAT YOU DON'T KNOW WHAT YOU WANT IN YOUR GARDEN—

BUT HERE IS THE POINT—

“THAT A CERTAIN VARIETY OF VEGETABLE IS MORE PRODUCTIVE IN SOME PARTS OF THE COUNTRY THAN IN OTHERS,”

THEREFORE,

We have made up a collection of the important early and late garden vegetables known to be the most productive, either in the North, East, South, West or the Middle West. This means that a customer in Minnesota would not get the same collection that would be sent to a customer in Texas. You get only good varieties and we feel sure that in applying this method of adaptability to your section will give you the most productive garden you have ever had.



\$1.25 brings this collection to your door postpaid, and there is sufficient in quantity for successive planting to prolong the supply throughout the season.

To serve you promptly we have made up these collections in advance of receiving your order and therefore cannot make changes in the quantities as listed.

You can readily see that this method gives you more value than you get in the ordinary collection, as it carries with it our special effort to make your garden productive.

THE FOLLOWING LIST IS WHAT WE SEND YOU.

1/4 lb. Green Pod Beans	1 pkt. Carrot
1/4 lb. Wax Pod Beans	1 pkt. Cucumber
1/4 lb. Early Peas	1 pkt. Onion
1/4 lb. Sweet Corn	1 pkt. Squash
2 pkts. Late Peas	1 pkt. Tomato
2 pkts. Radish	1 pkt. Parsnip
1 pkt. Table Beets	1 pkt. Spinach
1 pkt. Head Lettuce	1 pkt. Early Turnip
1 pkt. Loose Leaf Lettuce	1 pkt. Late Turnip

Simply Say Send me your garden collection adapted to my locality and it will be boxed up and sent you postpaid for \$1.25 and you will find it the best you have ever had in the way of a collection.



WENGER'S GOLD MEDAL



BRUNS IMPROV



EARLY CALICO



EIDS YELLOW DENT



IOWA
SILVERMINE



BRUNS
90 DAY
YELLOW

SUDAN GRASS

The greatest annual forage plant ever known 12 to 15 tons of feed per acre, next in value to alfalfa and far ahead of millet, kaffir corn, etc.

You can well afford to devote at least a few acres to Sudan Grass.



Sudan Grass.

Sudan Grass will grow on almost any soil and in almost any climate, is especially adapted to the semi arid regions of the southwest and, belongs to the sorghum family, but is much more slender in growth and more resembles true grass. Weather conditions seem to have but little effect upon it and it will make a crop in spite of anything.

It not only makes a wonderful crop in the corn belt, but in the dry farming districts we have seen it standing out tall and green during the hot dry summer and is undoubtedly the greatest drought resistor known. We have grown this grass under close supervision for some time and are enthusiastic in recommending it either for silage, for a hay crop, for dry feed or as a soil crop and, you cannot afford not to grow at least a few acres on your farm.

Manner of Growth. It grows from 6 to 8 feet high when sown in drills about 20 inches apart and cultivated. When sown broadcast it does not grow over 5 or 6 feet high and very slender, the stalks being about the size of a lead pencil, with the stems very leafy, erect and with no tendency to lodge. It will mature seed crop in about 90 days and hay crop in about 60 days, therefore is valuable for a catch crop.

Easy to Harvest. The crop should be cut for hay as soon as the grass begins to head, but grown for seed it should be allowed to mature. In either case it may be cut with a mower or with a grain binder. When grown for hay it is cut with a mower as closer cutting is allowed which increases the tonage per acre and grown for seed it is best to cut with a binder. It cures out very readily. After cutting it resumes its growth promptly and will allow another cutting, while in the South even four cuttings have been made.

Feeding Value. Sudan comes second to alfalfa in feeding value and far ahead of millet, kaffir corn, etc., and when you consider that it produces from 1½ to 3 tons of fine feed at a cutting and you get two and three cuttings and possibly more. It is one of the most profitable crops that can be grown on the farm. All kinds of stock relish it in either a green or dry state.

Low Seeding Cost Per Acre. Sown in drills it requires from 5 to 6 pounds of seed per acre, and sown broadcast it requires from 15 to 20 pounds per acre. For the returns in Sudan grass the seeding cost is very low.

Pure Seed. Some of the seed offered, grown in the southwest, is mixed with Johnson Grass, which is a perennial, the roots living through the winter, and which has become quite a pest in the south and southwest. Sudan grass resembles Johnson Grass, but Sudan is an annual and cannot become noxious. The seed we offer is Iowa grown and we therefore know the stock we have is free from Johnson Grass or other noxious seeds of any kind.

Seeding. Sudan Grass should not be sown until the ground is warm but it requires no special preparation for seeding, simply plowing and harrowing and it is generally sown with a grain drill, the quantity being stated above in the item of "low seeding cost per acre."

See picture of Sudan field on page 65.

Ask us for any special information on Sudan Grass you desire as we are always glad to give special information to suit your requirements. If you have not already done so, it will be well worth your while to get interested in Sudan Grass.

Special Quotation Sheet

This sheet is to be used by the customer in asking for special quotations on field seed.

Let us hear from you with a list of your seed requirements and we will promptly quote prices.

Youself and neighbors can save money by having your order for your field seed all filled at the same time. Make up a list of your neighbors requirements and you will be surprised at the saving we can make you on pure, clean and high germinating field seed.

Note.—This sheet is for asking quotations on field seed and seeking information only, as you will find the regular order blank elsewhere in the catalog.

To BRUNS SEED COMPANY,
Washington, Iowa.

Please quote your best price on the following list of field seed:

Name..... Address.....

[illegible]

Don't Forget to Give Your Name and Address Above

Wholesale Net Prices of Grains, Clovers, Grasses, Potatoes, Etc.

Good to March 1st, 1920, subject to stock being unsold

United States Food
Administration License
No. G-156129

NO CHARGE FOR BAGS

Wheat Directors'
License
No. 035914-E

On account of the short supply of some field seeds, we cannot guarantee these prices to hold good later than March 1, 1920. After that date ask for our latest price list.

It is probable that most of these prices will remain the same throughout the season, but if your order is received after the above date and we could not fill at these prices, we would immediately notify you before filling the order.

All grass and field seed are sent at the purchaser's expense by express or freight as specified in the order. This includes seed corn, grasses, clovers, forage seeds, potatoes and any seed in bulk on which we have made no delivered prices in the catalog.

All orders must be accompanied by cash as we do not open accounts in the mail order business.

WE GUARANTEE all seeds to be of high germinating power and will allow ten days for examination and test, and if not found satisfactory they may be returned and you money will be refunded.

We do not guarantee crops, as there are too many things essential to a good crop over which we have no control, and if the seed are not accepted on this condition they are at once to be returned.

SMALL QUANTITIES BY MAIL, POSTPAID. If a small amount of any seed listed in pound lots on this page is wanted by mail, add 5c per pound to our prices, which will fit most cases cover postage.

GRAINS (All recleaned, graded and tested)

	10 bu., 25 bu.	10 bu., 25 bu.	10 bu., 25 bu.	10 bu., 25 bu.
	1/2 Bu.	Bu.	Per bu.	Per bu.
Iowa 103 Oats (pedigreed).....	\$.....	\$1.40	\$1.25	\$1.24
Iowa 105 Oats (pedigreed).....	.....	1.50	1.40	1.35
Harly Java Spring Wheat.....	1.85	3.40	3.25	.....
Marquis Spring Wheat (Beardless).....	Write for prices.			
Oderbrucker Barley.....	1.40	2.50	2.40	.....
Monster Spring Rye.....	1.50	2.75	2.65	.....
Rosen Winter Rye.....	Write for prices.			

ALFALFA (60 lbs. per bushel)

	Lb.	1/4 bu.	1/2 bu.	1 bu.	100 lbs.
Nebaska Grown.....	\$.50	\$ 7.25	\$14.00	\$27.50	\$45.00
Dakota Grown.....	.55	8.00	15.50	30.00	50.00
Grimm.....	.80	12.00	23.00	45.00	75.00

CLOVER (60 lbs. per bushel)

	Lb.	1/4 bu.	1/2 bu.	1 bu.	100 lbs.
Medium Red .. { Washington.....	.60	8.50	16.75	33.00	55.00
Mammoth Red. { quality.....	.60	8.50	16.75	33.00	55.00
Alsike..... { Iowa grown.....	.60	8.50	16.75	33.00	55.00
White Dutch.....	.75	11.50	22.00	42.00	72.00
Sweet Clover (White blossom, hulled and scarified)....	.45	6.00	11.50	22.00	36.00
TIMOTHY (fancy home grown), (45 lbs per bushel).....	.....	1.85	3.40	6.60	14.50
ALSIKE-TIMOTHY MIXED, 20% Alsike.....	.....	2.60	4.75	9.25	20.50

GRASSES (Thoroughly recleaned)

	1- 10 lbs.	10- 25 lbs.	25- 50 lbs.	50- 100 lbs.
	Per lb.	Per lb.	Per lb.	Per lb.
Kentucky Blue Grass (14 lbs. per bu.).....	\$.35	\$.33	\$.32	\$.31
English Blue Grass (Meadow Fescue).....	.45	.42	.41	.40
Perennial Rye Grass.....	.25	.22	.21	.20
Red Top.....	.30	.27	.26	.25
Permanent Pasture Mixture (Upland).....	.35	.32	.31	.30
Permanent Pasture Mixture (Lowland).....	.35	.30	.29	.28
SUDAN GRASS (Iowa Grown, Extra Fancy).....	.25	.22	.21	.20
(Southern Grown).....	.23	.20	.19	.18

SYRUP CANE

	1- 10 lbs.	10- 25 lbs.	25- 50 lbs.	50- 100 lbs.
	Per lb.	Per lb.	Per lb.	Per lb.
Early Amber.....	.15	.14	.13	.12
Short Orange.....	.15	.14	.13	.12
FETERITA.....	.10	.09	.08	.07
KAFFIR CORN.....	.19	.09	.08	.07
COW PEAS (Whippoorwill).....	.15	.14	.13	.12
COW PEAS (New Era).....	.15	.14	.13	.12
SOY BEANS (Early Black).....	.18	.16	.15	.14
SOY BEANS (Early Yellow).....	.18	.16	.15	.14
SOY BEANS (Mammoth Yellow).....	.16	.14	.13	.12
CANADA FIELD PEAS.....	.15	.12	.11	.10
RAPE (True Dwarf Essex).....	.20	.17	.16	.15

MILLETS

	1/2 Bu.	1 Bu.	100 lbs.
	Per Bu.	Per Bu.	Per Bu.
Golden (50 lbs. per bu.).....	\$1.75	\$3.25	\$ 6.40
Siberian (50 lbs. per bu.).....	1.60	3.00	5.75
Japanese (40 lbs. per bu.).....	2.25	4.25	10.00

FODDER CANE

	1/2 Bu.	1 Bu.	100 lbs.
	Per Bu.	Per Bu.	Per Bu.
Amber Cane Seed (50 lbs. per bu.).....	1.50	2.90	5.75
Orange Cane Seed (50 lbs. per bu.).....	1.65	3.00	5.90

BUCKWHEAT (48 lbs. per bushel)

	1/2 Bu.	1 Bu.	100 lbs.
	Per Bu.	Per Bu.	Per Bu.
Japanese.....	.90	1.60	3.00
Silverhull.....	.90	1.60	3.00

POTATOES (60 lbs. per bushel)

	1/2 Bu.	1 Bu.	100 lbs.
	Per Bu.	Per Bu.	Per Bu.
Early Ohio (Red River Valley).....	.90	1.70	3.10
Irish Cobbler.....	1.00	1.75	3.25
Early Triumphs.....	1.10	1.90	3.50
Rural New Yorkers.....	.90	1.70	3.10

BUY YOUR FIELD SEED NOW. There is no doubt but that as the seed buying season advances, the prices will advance on account of the shortage of many field seeds. THOSE WHO BUY EARLY WILL SAVE MONEY.

WHEN COMPARING OUR PRICES, remember that WE FURNISH BAGS FREE, which is quite an item, as many are charging up to 75c extra for bags.

PRICES OF SEED CORN FOR 1920

The following prices on seed corn are very reasonable for the well-bred, carefully grown, graded, tested and high germination seed corn we supply.

NO CHARGE FOR BAGS—We make no charge for the bags in which we ship our seed corn, although bags are quite an item, and some firms charge considerable for them this season.

SHELLED AND GRADED SEED CORN—Most of our customers call for the shelled and graded seed corn, for the reason that it is thoroughly graded and ready for the edge drop planter, and of course they get net weight, without losing the shrink there would be in the cobs and butts and tips thrown out if you buy ear corn.

EAR CORN—We furnish ear corn at the same price as for the shelled and graded seed corn, providing that we may ship the ear corn in sacks, but to sell ear corn in crates we are obliged to ask \$1.00 extra per bushel to cover the cost of the crates.

If your order does not state whether ear or shelled and graded seed corn is wanted, we send the shelled and graded.

MONEY BACK IF NOT SATISFIED—We send out our seed corn with the privilege of ten days allowed for examination and testing and if the corn is not satisfactory you may return the seed corn and your money will be refunded. This is the only satisfactory way to sell seed corn and it is just to all concerned. See seed corn guarantee on page 48.



SEED CORN PRICES

IN THE EAR OR SHELLED AND GRADED.

	¼ Bushel	½ Bushel	Bushel	5 Bushel Lots Per Bushel	10 Bushel Lots Per Bushel
Reid's Yellow Dent.....	\$1.60	\$2.75	\$5.25	\$5.00	\$4.75
Wenger's Gold Medal....	1.75	3.25	6.00	5.75	5.50
Bruns Ninety Day Yellow.	1.60	2.75	5.25	5.00	4.75
Golden Prosperity.....	1.60	2.75	5.25	5.00	4.75
Mortgage Lifter.....	1.60	2.75	5.25	5.00	4.75
Pride of the North.....	1.60	2.75	5.25	5.00	4.75
Leaming	1.60	2.75	5.25	5.00	4.75
Early Calico.....	1.60	2.75	5.25	5.00	4.75
Iowa Ideal.....	1.60	2.75	5.25	5.00	4.75
Iowa Silver Mine.....	1.60	2.75	5.25	5.00	4.75
Ensilage and Fodder Corn.	1.25	2.25	4.25	4.00	3.75

ENSILAGE AND FODDER CORN



We have two varieties of very large corn, one white and one yellow, that grow too large to mature in the central part of the corn belt, but we consider it absolutely the best of any kind to grow as a fodder corn. We recommend them for fodder corn only, and if you want to produce a large tonnage to the acre of the finest fodder, let us send you some of this corn, either in the white or yellow, as you prefer.

See prices above.

GARDITE Guards Gardens



GARDITE Guards Gardens

Use it this season and keep the bugs and worms out of your garden. GARDITE stimulates the growth of vegetables and develops flowers into their most beautiful full bloom. GARDITE comes in sifter top cans and is easily applied. After a shower or dew scatter GARDITE on the plant, and under it. It will kill the bugs and worms and keep the others away. It is non-poisonous and will not harm anything but the insect. You need GARDITE this year to grow healthier and better vegetables and flowers.

1 lb. can, 35c (postpaid 40c)
3 lb. can, \$1.00 (postpaid \$1.10)



GERMITE

Good from the Chick to Hen

Shields your poultry from Roup, Colds, Chicken Cholera, Bowel Complaint, Canker, Chicken Pox, Swelled Head and other diseases. GERMITE is successfully used in the treatment of diseases among chickens as well as a preventive. Use GERMITE regularly. It is guaranteed. It comes in tablet form for convenient mailing.



VERMITE Kills the Lice

Make your poultry lice-free. If they're always kept busy scratching and searching for those tormenting pests, how can they be healthy and productive? Wolf's VERMITE contains "Sodium Fluoride" and other powerful drugs especially recommended by the United States Government, Department of Agriculture, for the extermination of lice, mites and other vermin on poultry, hogs, horses and dogs. Get a handy sifter top can of Wolf's VERMITE today. Your chickens need it. It's economical—dependable—and guaranteed.

TWO SIZES

Small, 30c (postpaid 40c)
Large, 50c (postpaid 60c)



SURE EGGS

Make Hens Lay

Make your hens lay regularly. You can do it with SURE EGGS. Acts as a tonic and tones up their whole system. SURE EGGS contains the right ingredients that every good laying hen needs. Include SURE EGGS in your order and get more eggs from your hens.

Price, 75c per pkg. (postpaid 85c)

Price, \$1 per pkg. (postpaid \$1.15)

Bruns Select Seed Potatoes

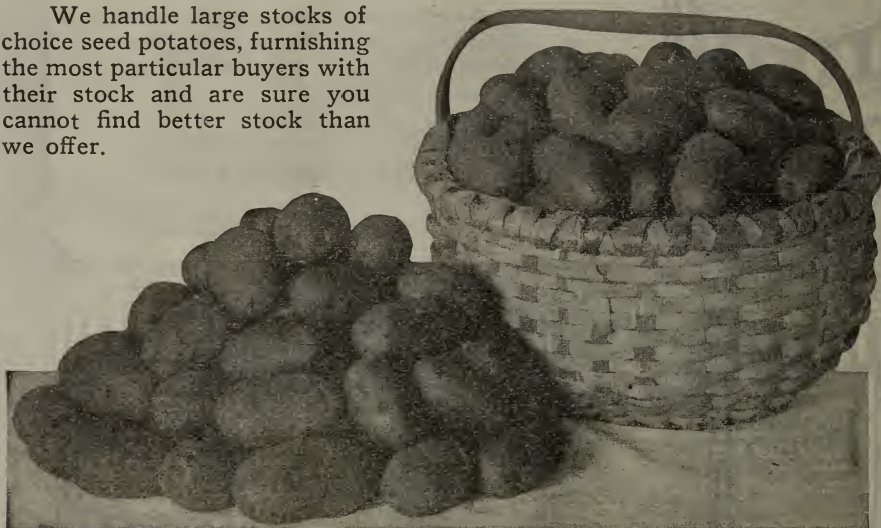
There will be a big demand for seed potatoes this season, in fact we have been receiving many inquiries for some time past.

Our best advise is to secure your stock early, as if you do not the chances are that you will have difficulty in locating suitable planting stock.

EARLY AND MAIN CROP VARIETIES GROWN IN THE NORTH

For some years we have had our early potatoes produced in the Red River Valley of the North, and our stock coming from Minnesota and Dakota is true to name stock. We have found by careful trial that this stock is earlier and more vigorous and better yielders than any other stock can be that is grown in other sections.

We handle large stocks of choice seed potatoes, furnishing the most particular buyers with their stock and are sure you cannot find better stock than we offer.



Red River Early Ohio.

EARLY OHIO. Red River Stock

It is admitted that the Red River stock of the Early Ohio is ten days earlier than ordinary and is the best money maker for the gardener growing it for the first early. It produces abundantly on good potato ground. As an early potato it is more reliable than many of the kinds apparently originating each season with big claims attached to them as the earliest potato to be had, which produce small tubers, many times of inferior quality and do not give sufficient yield to be of real value to the grower.

Among the reliable growers the Early Ohio, Red River Stock is planted more than any other variety. The vines are very unright and they require less space than some other varieties and the tubers are so smooth and with so few eyes that people demand them as they are the most economical potato for the housewife to buy.

The Early Ohio grows very compact in the hill and, near the surface and for that reason are easier dug than many other kinds and yields up to four and five hundred bushels per acre have been reported.

Among the growers it is a well known fact that it is necessary to change their seed occasionally, and if your seed is running out there has never been a season when we could supply you with better seed than we have this year.

The color of our Red River Ohio stock is a light flesh-colored skin with pure white flesh that cooks up dry and sparkling, and while this stock is early it is a splendid keeper and is very seldom affected by blight.

For prices of seed listed on this page see blue pages at center of book.

IRISH COBBLER. An early and heavy cropper

Our strain of Irish Cobbler Potatoes when exhibited at the Iowa State Fair, 1916, won first and sweepstakes over all other varieties.



Irish Cobbler.

Irish Cobbler has been the most famous early potato of the East, this variety being the exclusive variety grown by many of the large growers for the early market, and from there its popularity has spread throughout the entire United States. It has the color and form so popular in the markets.

Irish Cobbler is so prolific and profitable to the grower that it has become a much prized variety. In light sandy soils it matures almost as early as the small growing earliest market potato of one-half its size, and for that reason the grower can be well repaid for waiting a few days longer for a crop of Irish Cobblers to market in place of the very small round early potatoes that make a much smaller crop. For an early potato to make a good yield, the Irish Cobbler is the one to rely upon.

Irish Cobbler will always sell in the markets and we have reports from many customers stating that it has been a great trade winner with them.

Irish Cobbler matures a little later than Early Ohio and is preferred by many as it is of a more rounded form, cream-white in color, with the few small eyes shallow so that there is practically no waste in preparing them for the table. Its flesh is pure white and of a fine flavor and cooks up very mealy as soon as they have matured for table use. It runs very uniform in size, with but very few if any small potatoes in the hill. In some sections they report that it ripens a little later than the Early Ohio, but that it is a much better yielder than the Ohio.

The vines grow upright, which permits of close planting and it is a favorite with the housewife as its cooking qualities are so excellent and it is such a good yielder under very ordinary conditions.

Our stock of this important potato is grown in the Red River district in Minnesota and is very superior to stock grown in other sections, and it is our advise to plant new stock each season as you will gain in earliness and quality over that grown from home grown seed.

If you have never grown the Irish Cobbler it will certainly repay you well to give it a trial.

BLISS TRIUMPH

We have a small stock of this variety, which is the small early potato grown in the South for shipping North very early in the season. They are round and the color a bright pinkish-red and smaller in size than the Ohio or the Cobbler. Our stock of this is Northern grown and cannot guarantee to supply you unless you order early. The stock is very short this season.

POTATO EYES BY MAIL POSTPAID

Save Freight and Express Charges on Potatoes by Ordering the Eyes.

The best way to secure a start on new potatoes at a small cost. We guarantee safe arrival of Potato Eyes, as we can send them by mail well packed during colder weather than it is possible to ship by freight or express.

You can save freight or express charges on potatoes by ordering the eyes. We do not cut the eyes shallow but leave sufficient stock with each eye so that they will keep for a long time after being cut, and we guarantee safe arrival, therefore you take no chances in ordering eyes, and it is really the best method of getting a start on a new potato at a very small cost. The eyes are well packed and we can send them out at all times except during the coldest weather. We request the customer to specify the time they are wanted for planting and we will send them accordingly.

RURAL NEW YORKER

THE STANDARD LATE VARIETY.

In the late potato markets there are more of this variety brought in than any other of the late kinds. Rural New Yorker has the reputation of being the best cooker of any among the stock being used up to the time of beginning on new potatoes, and are good for use even after new potatoes have been used for some weeks.

Rural New Yorker is a very productive variety of fine quality, always cooking up dry and mealy, has a white skin and pure white flesh. They grow very uniform and large in



Rural New Yorker.

size, slightly oblong and flattened in shape and they grow very compact in the hill and are easily dug.

Rural New Yorker is the very best of keepers, as you will find them in good condition in the cellars some time after new potatoes have been in the markets. It is one of the largest yielding varieties in existence, preferred by the large buyers as it is unusually smooth with few and shallow eyes.

Rural New Yorker will resist the drought better than any other late potato and is also said to stand heavy manuring without getting scabby or spotted. Under very ordinary conditions they will yield from 300 to 400 bushels per acre, but in some sections where potato growing is practiced in a scientific way, this yield can be doubled.

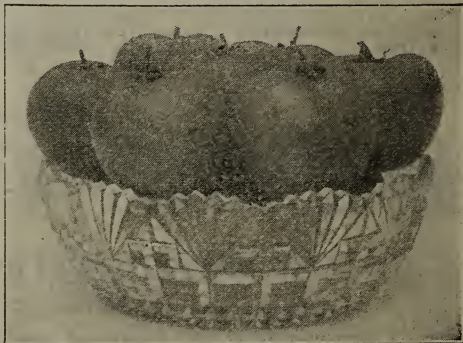
We have very true stock of the true Rural New Yorker, which is not to be classed with some of the ordinary stock offered by some dealers in potatoes that are not handling them exclusively for seed. Stock may be scarce this season and it will repay you well to get your stock ordered early as the demand will be great for this valuable variety.

GROW NEW VARIETIES OF POTATOES FROM POTATO SEED

It is from this seed that all new and valuable varieties have originated and they will be the greatest curiosity in your garden.

We find that a very small percentage of the people have seen the potato seed that is produced in the potato balls formed on the potato plants. Thousands have tried to produce seed, but without result, as there is a

science about it that we, ourselves, do not understand. We have secured some of this seed from an expert in this peculiar science. The seed is put up in packets of about 50 seeds to the packet, and you will find it intensely interesting to find what this seed will produce in new kinds of various colors, shapes, sizes and qualities.



Potato Seed Balls

From this hybridized seed you will no doubt produce a potato that will be well adapted to your locality and to do that you will have made a very profitable venture.

Price of Potato Seed: Packet with full instructions for growing 15c; 4 pkts., 50c; 10 for \$1.00.

SEED CORN

Which do you prefer Seed Corn or Corn Seed

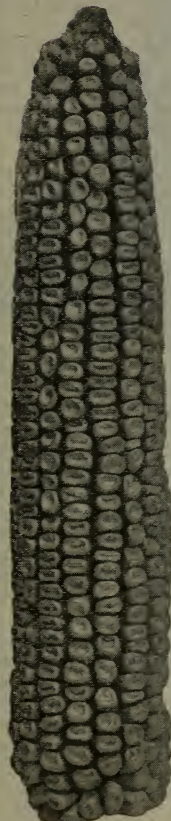
Whatsoever a man soweth that shall he also reap.

Here are represented two ears of yellow corn, and to distinguish them, we might call the one at the left "Corn Seed" and the one on the right "Seed Corn." This reversible name we consider very appropriate as you will probably find it necessary to reverse your opinion as your thoughts pass from one to the other. There is also another reversible feature in connection with these two years, as stock of the "Corn Seed" type would be expected to yield about 28 bushels to the acre, while stock such as the "Seed Corn" type would be expected to yield about 82 bushels to the acre.

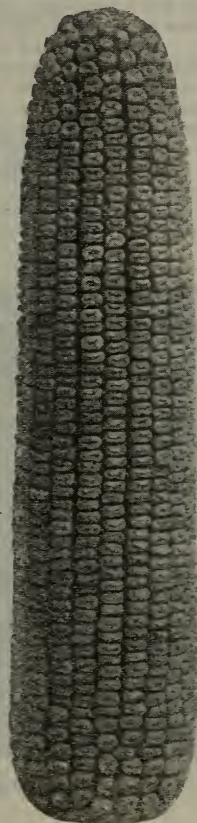
Now just assume that we had shelled and planted the grains from one of these ears, not saying which one, and a few weeks later when the stalks had produced four or five leaves you would discover that we had a good stand of corn and remark that we ought to get a good crop, but you will agree with us that your estimate of the crop would have to be based upon which type, whether the "Corn Seed" or the "Seed Corn" had been planted.

If this had happened some years back, but not beyond our recollections, there would have been no question in mind as to what kind of seed had been planted. In those days—and good old days at that—the farmer was considered a good manager that made it his business to know that the boys and women folks about the place did not feed out the last bit of corn to the pigs and the pesky chickens without keeping enough for planting. This was the extent of his responsibility as far as the preliminary steps of corn growing was concerned. He and his neighbors all grew corn and it all looked about the same, and that was all that could be expected. Those days of planting corn and these days of planting corn are well reflected in the two ears shown herewith—"Corn Seed" developed into "Seed Corn."

Notwithstanding this advancement, there are some farmers today planting Corn Seed instead of Seed Corn from the fact that many firms are selling corn as seed corn, some doing so intentionally and others failing to produce real Seed Corn through lack of knowledge and facilities. It is comparatively easy to produce Corn Seed but to produce Seed Corn requires a long and patient study of the full organization of the corn plant, before one can follow the practice of producing seed corn, just as the medical student must study the organization of the human body before he can practice medicine.



Corn Seed.



Seed Corn.

THE BREEDING OF SEED CORN

The starting of our seed corn business dates back a number of years, preceded by many years of breeding seed corn on our farm for our own use. Self-education, gained through a genuine interest and experience in the work, along with a course of study at the Ames Agricultural College, on the breeding and growing of seed corn and other farm seeds, has fitted us with a valuable knowledge and experience, the value of which can best be appreciated by a careful inspection of our products.

PROOF OF QUALITY

Awarded 17 medals and two honorable mentions at the Panama-Pacific Exposition of 1915.

Winners of first and sweepstakes over all on individual collective farm exhibits at Iowa State Fair 1916.

Awarded first prize on best bushel of Reid's Yellow Dent from southern Iowa at Iowa State Corn Chow held at Ames, Iowa, in 1917.

OUR METHODS AND FACILITIES FOR PRODUCING SEED CORN

We have received personal visits of inspection from only a small portion of our customers. We are always glad to welcome any visitors, and will say to those deeply interested in good seed corn, it would repay you to inspect our methods and facilities. We have facilities of which we are proud and if there were any better, we would have them.

In the fall, as soon as conditions are right for selecting seed corn, we have men in the field picking in baskets, which are brought in wagons to the seed house. As soon as it reaches the seed house the ears are carefully sorted and any objectionable ones discarded, the balance placed in the drying racks, the latest improved, which does not allow one ear to touch another, with very sufficient space for drying uniformly. You will find these racks illustrated on the following page.

During good dry weather the doors and windows of this special corn drying house are open to let the air circulate and dry the corn in the natural way. During cold, damp weather the building is heated with a furnace and in addition to this electric fans are kept running day and night to keep up a circulation among the corn racks.



In handling seed corn in this manner it involves considerable expense that some might think was unnecessary, but it is the only right way to put out seed corn with the maximum in germinating power. No matter how fine quality you may have in seed corn, it must have the maximum of life to insure a stand that is prepared to overcome any drawbacks that might be encountered during the growing season.

After these seed ears are thoroughly dried, we usually find some that we consider necessary to reject and the balance are then tested for germination.

Our Method of Racking Corn in Seed House on the Farm.

OUR 1920 SEED CORN CROP

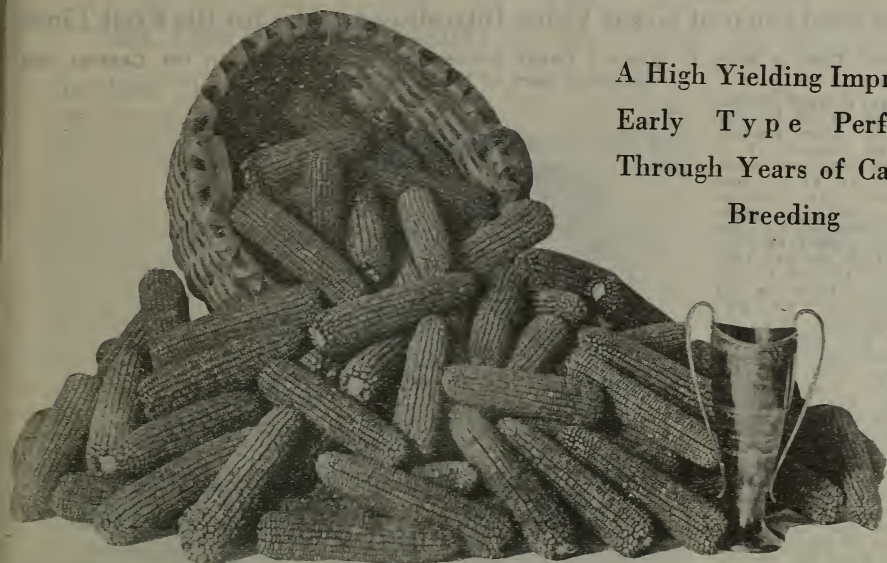
The immediate sections where we grow our seed corn, Washington, Iowa, and Sigourney, Iowa, have been very fortunate as favorable conditions prevailed the fore part of the season and we have never produced better seed corn than we have harvested this season. True, it was a little late when we planted on account of the heavy rains, but the corn grew rapidly and strong as there was sufficient moisture and the ground was in fine condition, and while it was quite dry in August, our fields did not suffer. In fact, the corn ripened up to a perfect degree and is very solid.

While we know that many sections of the country and even sections in Iowa have not been favored with favorable conditions for producing good seed corn, we could not have wished for better conditions than we have experienced and we have never been in better shape to furnish seed corn of quality and strong in germinating power.

We always have a brisk demand for our seed corn and orders are filled in the order they are received. Therefore, order early and you will have your order filled promptly and be assured of getting the best seed corn that Iowa can produce.

Bruns Reid's Yellow Dent

A High Yielding Improved
Early Type Perfected
Through Years of Careful
Breeding



Our Prize Winning Bushel of Reid's Yellow Dent.

Reid's Yellow Dent is unquestionably the most perfect type of corn in existence. When this variety was first introduced into Iowa and the corn belt, we secured three of the most perfect ears obtainable and from this original stock have been selecting and breeding a type of Reid's that is earlier than the original, as it had to be earlier to insure maturity under ordinary conditions. Through our many years of working on this variety, we have aimed at a medium rough kernel, a medium-sized ear and every point to make a type of high yielding quality and now have in Bruns type of Reid's Yellow Dent a high yielding type with small cob and well near a perfect shape of grain to produce the largest possible yield.

We doubt if there are any farmers or corn growers not familiar with the general type of Reid's and will not attempt a detailed description. Throughout the corn belt there is more Reid's grown than any other kind. Its handsome appearance, when bred up to a high standard and its uniform type makes it especially desirable for show purposes.

As we were awarded first place at the Iowa Corn Show in 1917 for the best 80 ears of Reid's, in open competition with the best corn growers of the corn belt, it should convince all those interested in this variety that we have quality in this wonderful corn that is far above the average, and should be a safe guide as to where to place your order for Reid's Yellow Dent.

Among several types of Reid's offered, there are some of a rather too late maturing character, and types of this kind should be avoided, as with high prices of land and products prevailing it is not wise to take chances on a small margin of allowance for late planting or other drawbacks, that these later maturing types afford. While we cannot guarantee your crop, our type of Reid's requires less favorable conditions than others, which goes further toward an actual guarantee of a good yield than others can give you.

The growing conditions were ideal in our immediate section the past season, and have never had, nor could expect to have seed corn of stronger germinating qualities than we can offer you in Bruns Reid's Yellow Dent for your 1920 planting season.

SEED CORN IN NATURAL COLORS.

At the center of this catalog we show our best varieties reproduced as near as possible to their natural colors.

Wengers Gold Medal

A New Seed Corn of Great Value Introduced by Us for the First Time

A Variety That Is Sure to Make a Great Success for the Farmers in the Central and Southern Part of the Corn Belt.

Wenger's Gold Medal is offered by us for the first time this season. We have known of it for some time and have watched it as it has been bred, right here in Keokuk county, Iowa, by Mr. Wegner and we consider ourselves fortunate that we are able to offer this corn to our customers, as it is the product of careful breeding and we are sure it will make a hit with our customers.

It is a corn of very attractive appearance and of great feeding value as it has the richness in feeding value of the Reid's, the ears running from 10 to 11 inches in length and as Reid's was one of the varieties bred into this corn it resembles that variety in the type of grain. However, it does not appear as much of a show corn as that variety.

It is not claimed as an early variety as it is possibly a little later than our Improved Reid's, but it has wonderful yielding qualities and the stalks are quite leafy, so that it makes fine fodder late in the fall. It is an unusually vigorous growing corn and for that reason does well on thin ground and we recommend it for any part of the corn belt except the northern.

We are furnishing our own stock of this variety and we expect to have a great demand for it after it becomes known to our customers, who are looking for a heavy yielding corn in sections where the seasons will allow a 110-day corn to mature.

This corn has made as high a yield as 90 bushels to the acre, and on good corn land we have no doubt that many of our Iowa farmer customers can duplicate this record without any trouble. If it did not do as well as this the first year it would no doubt do it the second and thereafter.

We earnestly advise our customers to try this new variety as we are sure it will not be found lacking in any respect.

Our stock is not large as it is our first year of growing it and would advise your ordering early, whether you want one bushel or ten bushels.



LEAMING

The Leaming variety of corn was developed by J. S. Leaming while located at Wilmington, Ohio, and it is the corn from which many of our present varieties have been developed. Mr. Leaming was one of our pioneer seed corn breeders, as he started making selections for earliness and other good qualities as far back as 1826, having breeding plots in about the same manner as it is done these days. The Leaming corn therefore has been selected and improved upon more or less for the past 56 years.

Leaming has some characteristics quite marked. The ears are somewhat tapering with from 18 to 24 rows of grains, the grains wedge shaped, with square cut corners and nearly straight edges, with the color of the grain a clear yellow and slightly rough in its denting. The size of ear differs in various localities. It is a good yielder and particularly strong and vigorous, but later than Silver Mine and our Reid's Dent and best adapted to the central locations of the corn belt. It matures in from 110 to 120 days.

Seed Corn Guarantee

All Seed Corn is sold subject to your own approval. You can have ten days to give it any kind of a test or examine it in any way you wish and if it is not perfectly satisfactory you can return it and I will refund your money. However, I want it clearly understood that I cannot guarantee a stand in the field. As soon as you plant the corn our guarantee ends. Weather conditions and methods of planting, over which we have no control, make it impossible for us to guarantee the corn in the field. That's fair, and all anyone else can do.

Bruns Ninety-Day Yellow

AN EARLY CORN SIMILAR IN TYPE TO REID'S

The Best That Can Be Had in an Early Feeding Corn That Produces
From 40 to 60 Bushels Per Acre.



Bruns 90-Day Yellow.

Under ordinary conditions it will make a yield from 40 to 60 bushels per acre, and as this corn will be ready for feeding from about September 1st, no farmer can make a mistake in planting some of his acreage to this variety. We know of no other kind that can be fed as early and at the same time make as good a yield per acre.

The ears are from 7 to 9 inches long, with from 18 to 20 rows of kernels tightly set on small red cobs, and the corn is of a good rich color, equal to any in that respect. It is safe from frost in 80 days from planting and it shells out very heavy to the measured bushel.

Our stock of this corn was all grown under our own supervision. We have bred it up to its present high state and our demand for it has been increasing from year to year for the reason that we have something extra good in this early corn.

If you are not fully satisfied with your early type of corn you should try Bruns 90-Day, as we are sure you will adopt it as your earliest maturing corn that is satisfactory in every way. Remember that our demand is always good for this corn and would advise your ordering early.

We have found that Bruns 90-Day Yellow has filled a long-felt want with many of the farmers of the corn belt, from the fact that the type of this corn is similar to Reid's Yellow Dent and for that reason everyone growing it has become very much attached to it. While it is not as large as Reid's, it is far in advance of many of the 90-day types and is not to be compared with them.

Bruns 90-Day Yellow does well in any portion of the corn belt, but we would perhaps not advise it planted in the southern portion. It takes first place in being the best for late planting after failing to get a stand of the later maturing varieties and the very best to grow in fields that are intended for hogging down in the fall.

PRIDE OF THE NORTH

This is similar to the 90-Day Yellow but the ear is a trifle smaller and the color is more inclined to be red. We have known it to make a crop of corn when planted July 4th, and when planted May 15th it has been ready to turn the stock into it by August 1st. It is an excellent variety for hogging down. When the ground is rich this has been planted at the rate of four grains to the hill and that will make a good yield as it makes up in numbers what it lacks in size. The cob is extremely small and not more than 7 or 8 pounds in a bushel of ears and is an excellent corn for feeders to grow. It will ripen in 80 days ordinarily and in many cases we have heard of it ripening in 75 days. The ears are very shapely and we have a very fine stock to offer for the 1920 planting season.

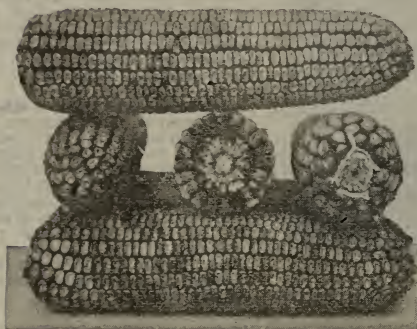
GOLDEN PROSPERITY

Golden Prosperity is a cross between the Prosperity as it was originated in Ohio and the Golden West variety that has been very prominent in the past. Bringing these two varieties together and breeding them up here in Iowa has produced a wonderfully good type of corn, as it retains the very rich golden color of the Golden West and the good yielding qualities of the Prosperity. It is an improvement over the former varieties taken separately, and in comparison with other varieties is very similar to the Reid's as far as type of grain is concerned and will mature about the same time. It is not, however, bred up to the point of being a show type of corn to the extent of our Reid's Yellow Dent.

The ears are from 9 to 11 inches long, containing from 18 to 22 rows that are very straight on the cob. It is a medium late variety and will not mature in the northern states unless the season is very favorable. It is very leafy and the stalks grow about 9 feet high.

MORTGAGE LIFTER

**A Heavy Yielding Corn—Very Popular
and Adapted to Many Sections of
the Country**



Mortgage Lifter.

Mortgage Lifter grows an ear quite uniform in size, from 10 to 12 inches in length, but the grains vary somewhat in their shape and denting, some being much rougher than others. It is a large-eared type that matures in from 110 to 115 days from planting and has produced in this section from 75 to 85 bushels per acre. It is well adapted to many sections of the corn belt and has been grown in the East as well as West of the corn belt with good success. An exhibit of Mortgage Lifter was made at the Chicago World's Fair, where it made a wonderfully good impression and was very popular for a number of years following that exhibit. It is a corn, however, that will never be considered as an exhibition corn as its type is not uniform enough but it makes up in quantity what it lacks in quality and we can recommend it as a profitable variety to grow in any section that will grow dent corn.

About What is a Bushel of Real Seed Corn Worth?

It is interesting to compare the cost of seed in proportion to the value of the crop. In oats the seed costs from 6 to 8 cents for every bushel produced, while in wheat it is over 10 cents for every bushel produced.

A bushel of seed corn can easily grow 450 bushels of corn and allowing for the price of well-selected seed corn being planted, it was determined that to grow a bushel of corn the cost in seed was one cent. This shows that in comparison with other crops you have a good margin to go on, when considering what you can afford to pay for seed corn.

It has been stated in a good corn magazine that good seed corn does not as a rule sell for as much as it should.

A good price for seed corn means that care and attention has been given it, and when you pass up seed corn that to some might seem to be too high in price, you are lowering the product that you may expect to get.

The seed of wheat, oats or alfalfa costs from \$3.00 to \$5.00 per acre and at this rate seed corn would not be too high at \$10.00 to \$20.00 per bushel. You could figure that you would not get a large amount of seed at that price and would use what you get for foundation seed. It would be impossible to estimate the increased value that might come to future crops through the investment in a bushel of such seed.

EARLY CALICO

An Early Corn That Is Increasing In Popularity



Early Calico.

Early Calico has been commonly known as a larger ear than the other early varieties and some types of this corn have been bred to too large an ear. We are sure there can be no objection to our type on this point, as while it is a good-sized ear, almost as large as Reid's, it is perfectly safe to plant it anywhere within the corn belt and in fact has been successful outside of the corn belt in sections where it would not be successful were it not that it is an early, strong and fast growing corn.

Back about twenty years ago this was the most popular variety of corn grown in this country, but for some reason or other the best types of it ran out and naturally for a time it was not grown to any extent. Of late years it has been given much attention and has been coming to the front as one of the most important early varieties. Of late it has been bred to have a large grain of medium thickness and as to roughness of type it is similar to the Iowa Silver Mine.

We have grown this corn on our own farm and in spite of drawbacks during two or three unfavorable seasons we can recall that it made a yield of about 80 bushels to the acre of good sound corn. One season in particular it was planted the first of June and made good sound corn.

This corn was produced by crossing a red variety with a white which gives it a speckled appearance. The stalk does not grow quite as tall as Reid's but is much more leafy and spreads out more. The cob is small with the grains very deep and will cure out readily and will mature in from 90 to 100 days from planting. It is a valuable corn to grow for early feeding and a good drought resister and similar to the white corn in one respect, that it does better on thin ground than yellow will do, while on good ground it will yield from 60 to 80 bushels per acre, which is the best that could be expected from the early types. As it has heavy foliage it makes a good fodder corn.

Our type of this early corn is an improvement over the old type, and if you want an early, good yielding, large-eared corn containing a high percentage of oil and protein this is the best we could recommend in an early corn.

Extra Choice Select Seed Corn From Our Breeding Plot

To those who demand the most perfect seed corn that we can produce, we offer a limited amount of seed from our breeding plots. It is selected from the same fields that grow the seed for our own planting, which of course must be the nearest to perfect seed corn that we can produce.

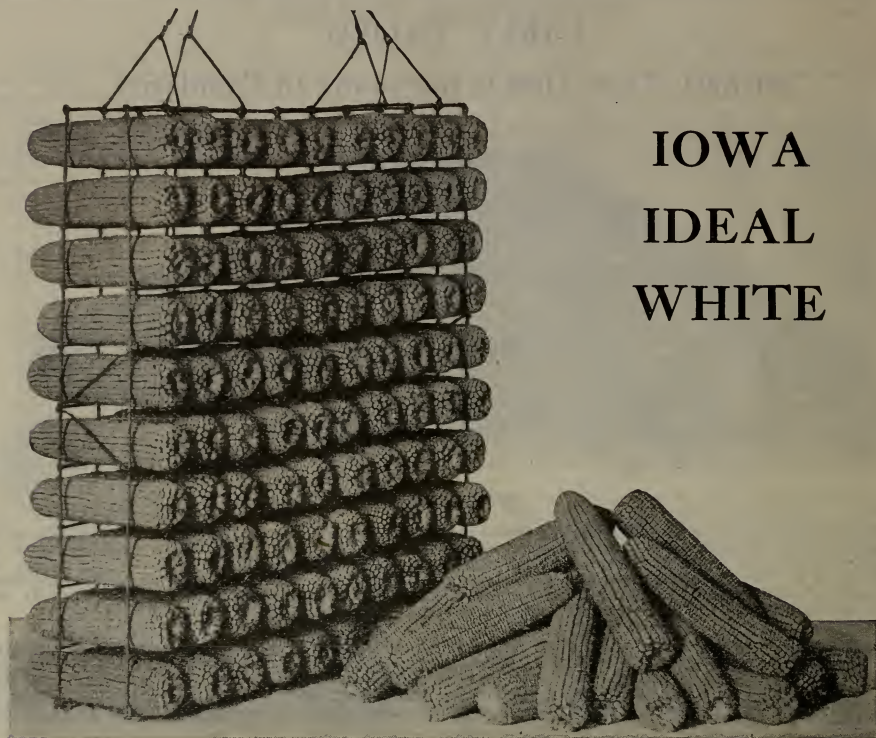
We can make this offer on the four following varieties only: **Reid's Yellow Dent, Iowa Silver Mine, Wenger's Gold Medal and Calico.**

The price for this breeding plot corn is as follows: Shelled and graded or ear corn, $\frac{1}{4}$ bu., \$7.50; $\frac{1}{2}$ bu., \$12.00; 1 bu., \$20.00. **Extra select ears of breeding corn** at 50 cents per ear, postage paid, 10 ears for \$4.50, postage paid.

To some this may seem a high price for seed corn, but at this price it is only costing you per acre to sow as it would per acre for sowing oats.

We have spent twelve years in breeding up our seed corn, and we value our choicest seed as a breeder of fine hogs or cattle would value the foundation stock that has produced for him his renowned strain.





IOWA IDEAL WHITE

Iowa Ideal.

This variety is so identical in every respect except color to the Reid's Yellow Dent that it might be called a white Reid's corn. The grain is deep and medium rough, the cob small and carries from 18 to 22 rows of kernels.

Iowa Ideal White is an exceptionally good yielder and on thin ground will outyield any other variety. It matures a few days earlier than Reid's and is adapted to latitudes north of this section.

We have a fine stock of Iowa Ideal this season, all picked and stored before the frost and is what we call premium seed of this variety. You can rest assured that it is of strong germination and the price we ask for this corn should be a secondary matter with you if you are wanting something fine in a white pure-bred seed corn.

Our demand for this corn is always heavy and would advise your ordering early.

CORN KING SEED RACKS

The best rack made for the drying of seed corn is the Corn King, shown on this page. They are of galvanized wire and so constructed that they will fold flat for shipment or storage, and when expanded they are very rigid and substantial. The racks each hold 100 ears, allowing three inches square space for each ear. Each ear has a uniform space and cannot come in contact with the adjacent ear. There is no rack made that utilizes the space as well as does the Corn King. They can be used very effectively in connection with the testing of seed corn, by retaining each ear in its respective space in the rack during the testing operation, where it can be easily located.

Many customers calling at our seed house have wanted us to order some of these racks for them, and for this reason we have arranged to keep some on hand for those who wanted them. The cost of these racks is more than made up in the satisfaction and convenience of the first year's use, and they will last a lifetime with ordinary care.

We can supply you with these racks at \$1.60 each or \$15.00 per dozen, customer to pay freight or express charges.

IOWA SILVER MINE

The Most Popular and Best Known of all White Varieties can be Grown Successfully over a Wider Territory Within the Corn Belt than any other White Corn.



Iowa Silver Mine.

Our stock of Iowa Silver Mine is from our carefully bred-up type and is a good yielding and most satisfactory white corn to grow. It produces well on thin ground, as do other white varieties. and the uniform type of our stock, with rows straight on the cob, the tips unusually well filled out, makes a white corn that has been giving universal satisfaction.

The length of the ear is from 9 to 10 inches with from 18 to 22 rows on the cob, the grains quite deep and in proportions very similar to the grains of Reid's Yellow Dent, with the center of the dent pinched that gives a slightly rough appearance but not enough roughness to be objectionable.

Our type will mature in from 90 to 100 days and will make a good crop under conditions that would be very detrimental to many other kinds, and it has been demonstrated that our Iowa Silver Mine is adaptable to a greater territory of the corn belt, and even outside of it, than any other variety of corn. Being bred up to mature a little earlier than the average of this variety accounts for its wide adaptability to the extreme northern part of the corn belt.

Some wonderfully large yields have been reported in favor of Iowa Silver Mine, as 70 pounds of ears will shell out 62 pounds of shelled corn. It has a small cob that dries out readily and our type has been bred to have a very heavy root development which produces a strong stalk that will withstand storms remarkably well.

Everything considered, our Iowa Silver Mine is the finest attainment in white corn and if you are a grower of white corn we are convinced that you would find our carefully bred type to fully meet your expectations.

EAR CORN OR SHELLED AND GRADED—WHICH?

We can furnish the corn either way you want it at the same price. Most people seem to prefer the shelled and graded corn, in fact over 90 per cent of last year's orders were for shelled corn. There are special advantages about the graded corn that you don't get the other way. It is all ready for planting and will work perfectly in an edge drop planter. Then, too, you get 56 pounds of graded corn per bushel and we keep back the screenings. It is much more convenient to ship shelled corn than in the ear and costs a little less. But you are the judge and if you will state how you want it we will be glad to send it that way. It doesn't cost us much to grade it, as several hundred bushels can be run through the grader in one day. There is no difference in the two, both come from the same field, stored in the same building and taken care of in the same way.

If you want ear corn we can furnish it at the same price as for shelled corn, provided we can ship it to you in burlap bags, but if you require us to crate ear corn, we have to ask \$1.00 additional per bushel to cover the cost of the crates.

Spring Wheat

Sow from $1\frac{1}{2}$ to 2 bushels per acre.

EARLY JAVA SPRING WHEAT.

An early, bearded spring wheat that gives fine results in the corn belt.

For three years in succession, during the years of 1914, 1915 and 1916 our samples of early Java spring wheat were given first place over other wheats exhibited at the Iowa State Fair.

We find this variety especially adapted to climatic conditions of the corn belt. It has an extra hard, dark red plump kernel and is unexcelled for milling qualities. The question of quality is of great importance to the wheat grower when he comes to dispose of his crop at the mill. Early Java will almost without exception grade No. 1 hard.

It is a bearded variety with a stiff straw that will not lodge readily, and an extra good yielder. It will ordinarily produce 25 bushels to the acre and we have seen it produce 46 bushels to the acre and weigh 66 pounds to the bushel. Farmers that sow this variety are delighted with the results and many will sow no other. It is several days earlier than many other varieties and not easily affected by the hot dry winds.

For the past five or six years it has given excellent satisfaction in Central Iowa and for this reason it is coming to be favorably known all throughout Iowa as being very dependable. It is usually ready to harvest as early as winter wheat, and therefore desirable to sow on land where winter wheat has partially failed.

Select Seed Wheat

You should realize that the best crops of spring wheat are grown by those who are the most particular in the quality of the seed sown. Yields as high as 31 bushels per acre were reported by many last season and wheat will again be a good paying crop. We have given special attention to the selection of seed wheat for the last few years in which so much depended upon the wheat yield and can offer seed wheat of a carefully selected and high grade of quality.



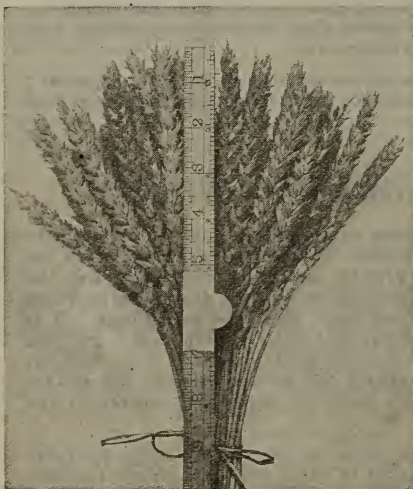
Early Java.

MARQUIS WHEAT.

Earliness. Marquis wheat is from one week to ten days earlier than Red Fife, and this is appreciated by every farmer as earliness is an important feature with the wheat grower at a time when rust, smut, drought or hot winds may take his crop, and a difference of a week or ten days may greatly benefit the grower.

Productiveness. It is claimed that Marquis wheat outyielded other spring wheats grown under the same conditions the increase in yield varying from 5 to 10 bushels per acre. Threshing reports from the three big hard spring wheat states that the same increase of Marquis over the other spring wheats has been about the same since it was introduced speaks well for this variety.

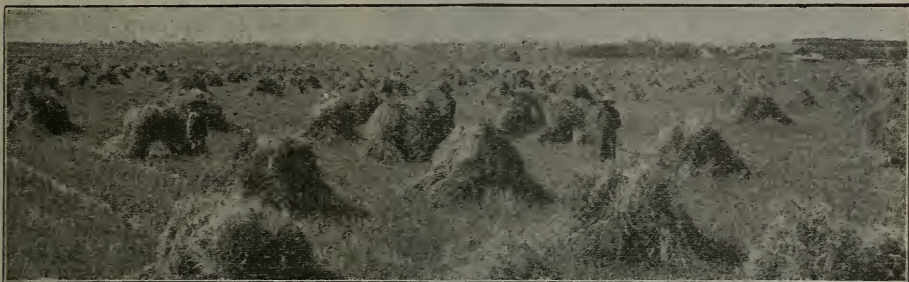
Appearance. Marquis wheat is similar in appearance to Red Fife, but as a rule the heads are heavier and the straw shorter. The kernel is flinty and a little darker in color than Red Fife. It is beardless, having smooth, yellow chaff. It will weigh from 64 to 66 pounds to the measured bushel.



Marquis Spring Wheat.

Select Winter Wheat

One of the advantages of winter wheat is that it is sown in the fall when the farmer is less rushed with his work and winter wheat often outyields spring wheat.



Field of Turkey Red Winter Wheat.

TURKEY RED WINTER WHEAT. Has a Record of Over 50 bushels Per Acre in Iowa.

We have handled a great quantity of this variety and we have thought it was more extensively grown than any other kind of winter wheat. It is very hardy, withstanding extreme cold winters and makes an excellent grade of flour. Some claim it is not quite as productive as Red Fife, but we know it is very strong and vigorous and produces good crops year after year, with a record of over 50 bushels per acre in Iowa. Our stock of this is northern grown and farmers should insist that they get northern grown seed as this variety of seed produced at other locations than in the North will not be as hardy and is liable to winter kill if planted in the Northwest. We have found that our northern grown seed will produce good crops in any section where wheat can be grown and much more productive than home-grown stock.



Field of Kharkov Winter Wheat.

K H A R K O V WHEAT

This variety was recently imported from Russia and is a very hardy and heavy yielding variety. It stools greatly and produces a stiff straw that stands up well on rich lands. It is rapidly gaining in popularity and believe it will soon be a variety of great importance.

RED FIFE WINTER WHEAT.

This variety was originated in Russia about 20 years ago and brought to this country, where it was known as Reliable Minnesota Winter Wheat and later the name was changed to Bearded Fife Winter Wheat. According to tests by farmers and various Experiment Stations in the Northwest, made under all conditions, it is the hardiest winter wheat and the most productive ever grown in the Northwest. In Indiana, Bearded Fife has yielded as high as 62 bushels to the acre, and in Minnesota the crops average from 35 to 45 bushels per acre. Many kinds of winter wheat freeze out and winter-kill, but Bearded Fife always comes through the winter without injury, producing wonderful crops year after year in spite of extreme cold winters.

Iowa Grown Seed Oats

We are confining ourselves to the two varieties that give the best yields and in other respects are best suited to the corn belt and other Iowa sections. For the farmer who wants to sow grass seed with oats, we recommend the Iowa "103" for ordinary soil and for rich soil we recommend the Iowa "105". They will not lodge and this is assurance that the small young grass will not be killed or smothered out when storms come that would beat down the larger growing oats. Both of these varieties are early and safer to plant than later kinds.

Our stock is Iowa grown, carefully selected and re-cleaned and graded, and we feel certain that no better stock can be had than we offer. Samples on request.

SAMPLES OF FIELD SEED FREE

We will be glad to send samples of any farm seed we offer. Drop us a postal or ask for them when sending an order and you will get samples taken from the stock we are sending out.

IOWA NO. 103.

Iowa No. 103 oat commonly known as the White Kherson, is similar to the yellow Kherson except that it is pure white instead of yellow. Aside from being similar to the Kherson it is not to be compared with that variety as it so far excels it in productiveness.

Many that have grown this oat have reported that they would not grow any other, as it has produced as high as 100 bushels per acre, and we know that threshermen who have been working in various localities have reported that it is the fastest running oat that they have ever threshed.

We predict that it is the coming oat of the corn belt, as it has a very plump grain and a thin hull, which makes it weigh heavy and increases its feeding value over other kinds. It has the advantage of being an early oat and out of the way of the hot summer winds. The straw does not grow coarse and woody like some other kinds and owing to the fact that it does not make such a rank growth it is fine for a nurse crop.

From our own farm experience, and from reports from Iowa farmers in all localities, we really believe that it is the best oat ever introduced, as in many sections it has outyielded local varieties from 5 to 25 bushels per acre.

Iowa No. 103 is a new and absolutely pure production in oats that will replace many other varieties and we feel that we are giving the best possible advice to urge every Iowa farmer to grow Iowa No. 103.

Our stock is thoroughly re-cleaned and free from all inert matter and comes from the best and strongest stock of this new variety that could possibly be produced.

Get your order in early as there will be a big demand for this new oat.

IOWA NO. 105.

This variety is the same in appearance as the Iowa No. 103 except that it is a light yellow in color. It also resembles the Yellow Kherson but yields much better.

It is not quite as tall as the 103 and has a much stiffer straw and for that reason it is highly recommended for growing on rich soil as it will not lodge. As a majority of the farmers of the corn belt have rich soil this oat ought to be very valuable to them since it will not lodge and we predict a popular demand for the Iowa No. 105.



Barley, Rye, Buckwheat

ODERBRUCKER BARLEY.

Also known as Wisconsin No. 55 barley. The Wisconsin State Experiment Station has given special attention to the breeding of barley to obtain big yields, protein content and other qualities of value for feeding purposes. In all their experiments Oderbrucker barley is found superior to the Manshury barley in yielding from 5 to 10 bushels more per acre. It is a stiff-strawed, heavy yielding, six-rowed barley, about the same as Manshury in time of maturity, manner of growth and general appearance, but its kernel is more plump and weighs more to the measured bushel in stiffness than Manshury. It is superior to all other varieties tested for these points. It is also more resistant to rust and rust resistance it is superior to all other varieties tested for these points. It is also more resistant to rust and rust resistance it is superior to all other varieties tested for these points. Its nutritive value is very great. Barley mix for work horses, and two quarts of this mix in place of four quarts of oats. Barley should be sown on ground that is sown about 2 bushels per acre.



Rosen Rye.

MONSTER WINTER RYE.

Winter rye is sown either in the spring or the fall. Sown early in the fall it makes good pasture until quite late and also early in the spring, but if not pastured in the spring it will make a grain crop. It will not produce a grain crop if sown in the spring but will make abundant pasture. It is harder than wheat and can be sown on a great variety of soils and thrives in dry seasons on light sandy loam. It is grown for grain, fodder, soiling purposes and green manure. Sow from August 20th to September 15th, 1½ bushels per acre for grain and from 1½ to 2 bushels per acre for fall pasture. When drilled from 2 to 2½ inches deep there will be less liability of winter-killing. Highly recommended as pasture for calves, pigs and young stock.

ROSEN WINTER RYE.

This variety has been bred up to a high state of perfection for milling purposes. It is of fine quality and a heavy yielder and proving to be an important crop. It is grown with wonderfully good success in Iowa. Especially recommended for the corn belt section of the country.

This rye was originated by the Michigan Experiment Station and produces considerably larger grain than the other varieties. The kernels are very large and heavy and of a bright yellowish-blue in color. It is a very heavy yielding plump berried rye.

BUCKWHEAT.

Japanese is the most productive of the buckwheats and claimed the best variety in cultivation. It produces fine flour and is a week earlier than the Silver Hulled. A crop of 40 bushels has been produced from 1½ bushels sown, and the grain is a rich brownish color. It is a valuable crop for growing on ground that seems to be unplanted at the end of the planting season. It can be sown after winter rye or wheat and make a second crop. The straw of the Japanese is heavier than other kinds and need not be sown as thickly.

Silver Hull is a popular variety with a light gray colored grain, rounder in form and with a thinner shell than the Japanese. Some millers prefer it for flour as the thinner hull makes a smaller proportion of hull to the amount of flour obtained. Sow about ½ bu. of buckwheat to the acre.

For prices of seed on this page see blue price list at center of catalog.

Let us figure
with you on
your field
seed
wants

Right Prices
Good Service

Alfalfa

CAN BE GROWN ON EVERY FARM IN THE UNITED STATES

It would be impossible to say too much in favor of Alfalfa and it should be grown on every farm in the United States. Following are some established facts about Alfalfa that are very convincing:

1 lb. of alfalfa
produces from 10 to 15
lb. of oats and grain
mixture would be fed
not too poor and so



WHY YOU SHOULD GROW ALFALFA

It produces from 3 to 7 tons of hay per acre and has as much protein as wheat bran. Ten milch cows can be fed on less than two acres by soiling. One acre will pasture 20 pigs for six months. Three pounds per day makes the full feed for fattening lambs, four to five pounds for fattening aged sheep and thirty pounds for fattening steers. Sheep fed on alfalfa will gain from 8 to 12 pounds in 75 days, and will double with small grain ration added. Fed to dairy cows alfalfa maintains the flow of milk equal to June grass. Chopped fine with corn meal, such a mixture is worth more per pound than the original pound of corn meal. The green forage received from an acre of alfalfa for the season is about double that of clover and three times that of timothy. Alfalfa hay properly fed is more valuable roughage than either timothy or prairie hay. ITS VALUE TO THE SOIL. One of the most valuable characteristics of alfalfa is the long tap root that extends fifteen feet or more into the soil, and unlike most other farm crops alfalfa makes nearly all of its growth below the ground the first season. The deep growing roots penetrate the sub-soil and bring to the top soil the phosphorus and potash stored below, making them available as plant food for the succeeding crops. After the great roots decay they form passages for air and water, besides leaving openings for the roots of the next crop. As a soil builder, alfalfa adds over twice as much nitrogen to the land as the average acre of red clover. Nitrogen is the most important element in the soil and the one most likely to give out. Alfalfa does not ask the farmer for nitrogen, because it takes its nitrogen from the atmosphere.

RULES FOR SUCCESS

Alfalfa should be planted in deep, loose, friable soil, for if the soil is too shallow the plant cannot use its deep-feeding root system and might be choked out by surface feeding weeds. The roots can, however, penetrate rather stiff clay soil and sometimes go through hard-pan. The seed bed should be fine on top, but well settled and it is usually best to allow plowed ground to settle for six weeks before seeding. Plow the ground and disk and harrow it at intervals of very one or two weeks. When late planting is practiced, plow and cultivate as soon as the preceding crop is removed. Whatever the preparation is it must be uniformly good.

ALFALFA Continued

For sandy ground apply a light top dressing of straw or coarse manure just before seeding to prevent drifting of the soil, or sow the alfalfa on a thin stand of small grain such as barley.

The soil must be well drained, as alfalfa does not succeed where the water table is within six feet of the surface. Fine results have been obtained on drained bottom lands and land slightly rolling, or nearly level and well drained, is considered the best.

INOCULATION. For the first sowing it is best to inoculate the soil from an old alfalfa field, using about one-half wagon load of this soil to the acre. Select a cloudy day for the work and disk and harrow the inoculation that it may be well covered. An easier and highly successful method is to use "NITRAGIN CULTURE" listed on this page. In ordering state what culture it is wanted for so that we may send you just the right kind for your particular purpose.

LIME FOR ACIDITY. Alfalfa does not do well where the soil is acid and agricultural lime should be used to correct this condition, using about one ton to the acre at a cost of \$3.00 to be used after plowing and thoroughly disked several weeks before seeding.

SELECTION OF SEED VERY IMPORTANT. Poor seed is the cause for a great many poor stands of alfalfa and the highest priced seed is always the most profitable.

COVER THE SEED. Alfalfa seed must be covered and it is best to sow one-half the seed across the field in one direction and sow the balance at right angle to this first sowing, to get an even distribution.

USE PLENTY OF SEED. It is best to use as much as 20 pounds of seed per acre, that the ground may be well covered from the start to prevent weeds from becoming established.

OUR DAKOTA GROWN ALFALFA SEED

This seed comes from fields in Dakota that have stood in alfalfa for thirty years, living through severe winters, with the temperature at 30 degrees below zero in winter and with hot, dry winds in the summer. This seed cannot help, but produce good, strong plants and makes success with alfalfa possible on practically all farms. It is the best that can be obtained.

NEBRASKA GROWN SEED

This is from dry land sections and is a hardy strain from fields where the yield of hay and seed have been enormous. It is fine seed for the milder states. All plump, pure seed of fine color.

GRIMM ALFALFA SEED

Grimm Alfalfa originated in Minnesota many years ago and is of wonderful value to the Northern farmer. It was selected from the hardest plants year after year until it is a fixed type of extreme hardness and vigor. It differs from the other strains in the crown of the plant being receding and is, therefore, protected by the surface of the soil. It also stools greatly, as many as 300 shoots coming from one plant. The roots are also fibrous instead of having one long tap root. This is the one kind of alfalfa that is especially adapted for shallow soils in cold regions. Many growers report a larger yield from Grimm than from any other strain and that it gives a leafier and finer hay.

Our seed of this is the genuine Grimm, the best to be had and unexcelled for purity.

GOOD SEED, A LITTLE CAREFUL THOUGHT AND PAINSTAKING WORK WILL BRING SUCCESS IN ALFALFA GROWING AND THAT SUCCESS WILL BRING BIG RETURN FOR YOUR EFFORTS.

**FOR PRICE OF ALFALFA SEED SEE BLUE LIST
AT CENTER OF BOOK**

GROWS BUMPER CROPS!

of Alfalfa,
Clovers, Peas,
Beans, Other
Legumes



It will insure
a catch, yield
big crops

"Nitragin" Increases Yield, Makes Fertile Soil

The simplest, safest and surest system of soil inoculation for all legumes. The lack of necessary bacteria in the soil is often the cause of failure to secure a "catch" of alfalfa, clover or other legumes. "Nitragin" is insurance.

Use a reliable culture. NITRAGIN has been tried out and has made good. It contains strong, active bacteria—which produce nodules and take nitrogen from the air.

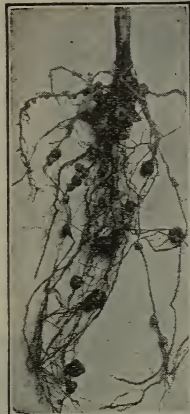
NITRAGIN is sold in the FINELY-GRANULAR MEDIUM and VENTILATED CAN so that the bacteria are good for a long time. INOCULATED legumes give better food and better soil. INOCULATION with NITRAGIN always pays.

PRICES

Garden NITRAGIN (for peas, beans, sweet peas only)	
all in one can, one size only; wght. 4oz.	\$.30
½ acre size (any culture, wght. 4 oz.)	.50
1 acre size (any culture, wght. 8 oz.)	1.00
2 acre size (any culture, wght. 1 lb.)	1.80
5 acre size (any culture, wght. 2½ lb.)	4.00
10 acre size (any culture, wght. 5 lb.)	7.50
Postage or Express is extra	

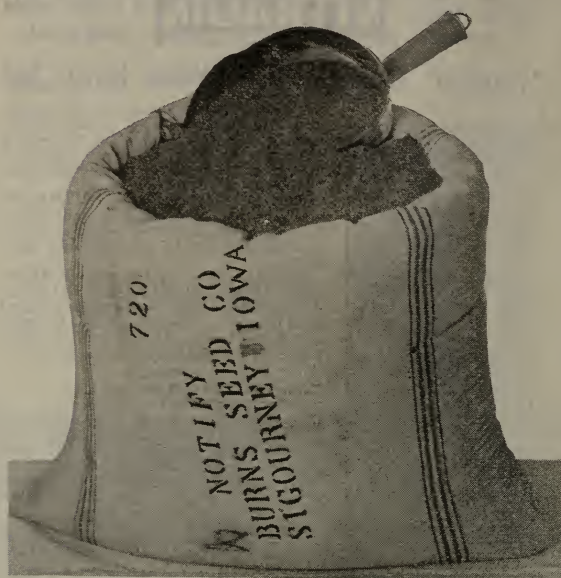
Please state for crop it is to be used,

as there are different kinds of NITRAGIN
USE GARDEN NITRAGIN FOR YOUR GARDEN PEAS AND BEANS



Clovers

OUR "WASHINGTON QUALITY" CLOVER SEED CANNOT BE SURPASSED.



Next to alfalfa, clover is the most important cattle feed that the farmer can grow and it is exceedingly valuable to the dairyman as it increases the flow of milk remarkably. All stock relish it and thrive on a clover and grain ration. Red clover is utilized for hay and pasture and also as a soiling crop. It is also used as a green manure crop to be plowed under if the ground is poor in humus. Even where it is cut for hay and only the stubble and roots turned under, it has great effect in increasing the productiveness of the succeeding crops. Stock of all kinds make excellent gains on either the pastures or hay. It has been shown that a crop of grain has been doubled by the growing and plowing under of a crop of clover. In order to keep the farm up, medium red clover should be sown with all the grains at the rate of 6 or 7 pounds to the acre, as a fertilizer and to keep the weeds down. Plowed under as green manure, two tons of it are equal to from 15 to 20 tons of manure.

Clean Medium Red Clover.

It is important that clover be cut at the right time, just when the heads begin to turn brown, as at this stage it contains the greatest part of protein.

Great care should be exercised in purchasing clover seed, as some stocks that have been offered contain certain weed seeds that are usually hard to detect and weeds would be produced that would be very hard to eradicate. There is no farm seed as expensive as cheap clover seed, as more weed seed can be sown in clover than with any other seed, and the little saving one would make by buying a cheap grade of seed should not be considered. We have known cases where cheap seed was sown, which made a poor stand and the seed not being clean infested the field with weed seed that cost more to eradicate than many bushels of good clean clover seed would cost. Get the best quality of clover seed obtainable and you will get the full worth of a good clover crop, your field will be benefited and free from weeds that always spring up from the cheaper grades of clover.

We have but one grade of clover seed—the best that we can make. We are very cautious to get seed from clean fields and with our improved facilities for recleaning the seed we can supply clover seed to stand the most rigid inspection and will be found free from noxious weeds.

Medium Red. Regarded as the most valuable of the clover family. Sometimes called June clover, and is a dependable all-around variety for the farmer and stockman. It makes two crops each year, the first usually being cut when it is in blossom for hay and the last crop may be cut for hay, or for seed or be plowed under to add fertility to the soil. It may be sown in the spring or fall and where no other grasses are used, sown at the rate of 10 to 12 pounds per acre. It is a wonderful soil builder and should be rotated with other crops every three to five years. When clover is sown with timothy from five to eight pounds is sufficient.



Mammoth Red.

Mammoth Red. This clover resembles Medium Red, but the foliage, flower and stem are darker in color and it makes a ranker growth. It is also later and makes but one crop a year. As it is a rank grower it makes a fine fertilizer and is valuable for light sandy soils. It is extremely hardy and will flourish on soils that are too heavy and low for the Medium Red Clover and where permanent hog pastures are wanted Mammoth Red will give the best results because it is a hardy perennial and hardly ever freezes out. It can be sown to good advantage in the fall, even in the north-western states, and should always be included in permanent pasture mixtures. As a fertilizer to plow under green it has no equal and for this purpose 5 to 6 pounds per acre should be sown with small grain. If sown alone, from 8 to 12 pounds will sow an acre.

Alsike Clover and Timothy Mixed.

We have a fine stock of alsike clover and timothy mixed just as it was grown in the field, together, which we can sell for less than we could mix the two after being grown separately. It is fine clean stock free from all inert matter. It is always recommended to use alsike in all medium red clover mixtures, as the alsike increases the forage crop and replaces the red clover as it runs out, as alsike is a perennial and does not winter kill. Alsike and timothy is rich in feeding value and will flourish on soils too wet for clover. This mixture makes a finer and more leafy hay and cattle prefer it.

Sow 12 to 15 pounds of this mixture to the acre.



Alsike Clover. This is better adapted to wet lands than any other clover, but it adapts itself to a great variety of soils, growing on the edge of streams or low land and also has flourished on dry stubborn stiff clay and upland soils, thus being capable of resisting extreme drought and wet alkali. It is well liked by all stock, either green in the pasture or when cured for hay. Stock have preferred it to red clover as it makes finer hay and is sweet and fragrant. It is sown with timothy as it matures at the same time and when sown with other grasses it makes a thick undergrowth and greatly increases the yield. It is a hardy perennial, the plant living for more than two years and does not winter kill. When alsike is sown for seed it is taken from the first crop. It requires from 8 to 10 pounds of seed per acre.



Alsike Clover.

White Dutch Clover. Of great value in mixtures for permanent pastures and lawns. It will grow on almost any kind of soil, but not on soil that is overflowed for any length of time. It will stand close cutting and very rapidly throws up an abundance of leaves and blossoms. The seed is very fine and about 5 pounds would be sufficient to sow an acre, but it is best to sow with other grasses. It is always to be recommended to be sown with blue grass for lawns as while it takes the blue grass some time to get established and make a showing, the white clover will produce a good effect the same season and will not very often winter kill.

SWEET CLOVER.

White Blossom. This variety very much resembles alfalfa in appearance and manner of growth. It lives only two years and produces the seed crop the second year. It grows quite high, as when grown for seed it reaches a height of seven feet. It grows in a variety of soils—heavy, light, wet or dry—and almost anywhere except in acid soils. It does best on a firm, well-drained soil which is rich in lime and delights in exposed sub-soils and stony situations. It is a great fertilizer and stores quantities of nitrogen in the soil, is grown largely for hay and pasture and it is said that stock prefer it to other feed after acquiring a taste for it. In some cases it is desirable to inoculate with soil from other sweet clover fields, or by treating the seed with commercial inoculator. Our sweet clover seed is scarified and tested for germination.

Sow from 15 to 20 lbs. of seed per acre.

WE SPECIALIZE ON FINE TIMOTHY SEED—"WASHINGTON QUALITY" BRAND



Threshing Timothy Seed on Our Farm.

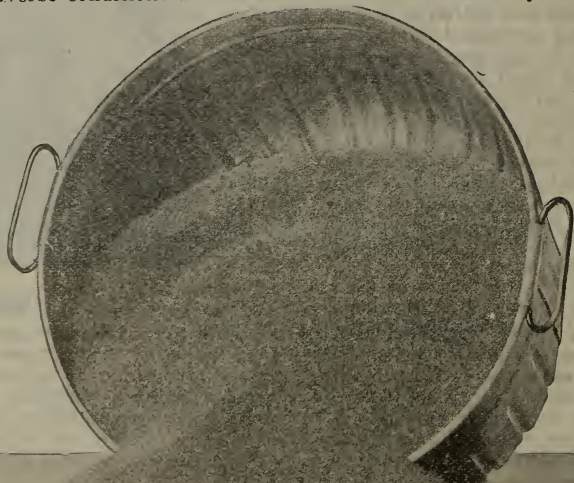
best to be had in recleaned, graded and tested seed, pure in quality and strong in germination.

SUCCESS IN GROWING TIMOTHY. To grow timothy at its best the soil should be rich and moist and fairly well supplied with humus. Dry sandy soils and soils low in fertility will not grow good timothy. It should be grown on clean soil, therefore should follow such crops as have been given clean cultivation, including corn, sorghum, potatoes, etc. Timothy may be followed by most any crops since it does not make a stiff sod, but the aim should be to follow timothy with some small grain crop.

In sowing timothy the ground should be well pulverized on the surface. When sown in the spring it seldom produces a good hay crop the same season. When sown in the autumn it seems to stand adverse conditions as well as winter wheat or barley. All things consid-

We are in the heart of the best timothy producing section of the country, always one of the very first on the ground to secure good stock from the cleanest fields. As we specialize on timothy and handle large quantities, we are especially well equipped to furnish the best quality and grade to be had.

We therefore solicit your orders for timothy with confidence that we can give you the very



Bushel of Timothy Seed.

ered, a good stand of timothy is more certain when sown along with a winter rather than with a spring nurse crop and will furnish more pasture after the crop has been removed. Of the winter nurse crops many first prefer rye and barley, also wheat and oats may be used. For a spring nurse crop, spring rye, barley, speltz, wheat and oats may be used.

SEED SELECTION. The success of timothy depends very largely upon the quality of the seed sown. We have the best known facilities for recleaning timothy seed and you will certainly be safe if you sow "Washington Quality" timothy seed.

HARVESTING. Timothy hay has the highest feeding value when it is cut early. There is usually quite a shrinkage if it is cut before blooming, therefore it is best to cut it while in bloom or very soon afterwards. It can be depended upon to yield from 1½ to 3 tons per acre.

Clover grows well with timothy and aids it by supplying nitrogen. Medium red clover and timothy make the standard crop for mowing and pasturing on a majority of the farms in the northern and middle states. Timothy alone cannot be said to be suited for permanent pasture as it will run out in the course of a few years. It is, however, well adapted to early spring grazing as it starts up early in the spring before blue grass, and as a grass for hay, it raises the largest crops on rich land, but is not suited for light, sandy soils as well as other grasses.

TIMOTHY FITS IN WITH ALMOST ANY ROTATION SYSTEM

As timothy is the foundation for pastures and meadows, it can be used in many combinations. It is generally sown with clover in the spring among oats, wheat or spring rye. When winter wheat or rye are grown timothy can be sown with it in the fall and the clover is added in the spring by using a disc harrow on the wheat or rye. It may be sown among corn at the last cultivation or sown on small grain stubble as soon as the grain is cut and harvested. A popular method is to sow timothy in the clover early in the spring, some using small grain as a nurse crop, others thinking it not necessary. If a nurse crop is used we believe the first choice would be Iowa 103 or Iowa 105 oats. Next in choice would be Marquis wheat, although we believe rye would be as good and just as profitable. Barley also makes a fair nurse crop. The nurse crop would vary according to location and the strength of the soil. The planting season for timothy extends from March to October, so that it may be used in many ways.

ALSIKE CLOVER AND TIMOTHY MIXTURE

Alsike and timothy hay has a much richer feeding value than timothy alone and will flourish on soils too moist for clover. Alsike is finer and more leafy than Medium Red clover and better suited for hay as stock eat it with a greater relish than any other combination. It is advised to use alsike in all Medium Red clover and timothy mixtures as alsike increases the forage and in addition will replace the red clover as it gradually dies out, since the alsike is a hardy perennial and does not winter kill. Sow from 12 to 15 pounds of this mixture per acre.

KENTUCKY BLUE GRASS

Kentucky Blue Grass is a very valuable pasture grass, but requires some time to establish itself. The root-stalks are creeping and when well set they will fill the sod with a close, dense turf. It will not establish itself fully until about the third year. It grows to a height of 1 foot but through fertilizing it will grow 2 and 3 feet in height. It is at its best for pasturing during May and June. It is adapted to many kinds of soils, doing best in a clay loam soil underlaid with clay usually containing some moisture. It grows at its very best on cut-over land that had grown hardwood timber. Blue grass is not considered a rotation grass, because it takes more than one year to get it established. It does best on clean land and the aim should be to sow it after cleaning a crop of corn or other cultivated crop. When once it has obtained a foothold on such soils it will prove more than a match for nearly all forms of weed life. Sandy soils, also humus and muck soils are usually well enough pulverized for Kentucky Blue Grass after plowing and disking and in some instances rolling the ground will be beneficial. When the seed is sown in the spring fine pulverization is more necessary than in the autumn. When sown alone on good soils from 20 to 28 pounds of clean seed is used per acre, but if sown in the chaff probably 3 or 4 bushels would be used. To increase the grazing for the first year it is advisable to add 3 or 4 pounds of timothy per acre. When sown on low lands with timothy, red top and alsike clover, 4 pounds of timothy and 3 pounds each of red top and alsike with 7 pounds of blue grass make a good combination. When the mixture consists of blue grass, timothy and either medium or red or mammoth red clover,



Kentucky Blue Grass.

FREE
SAMPLES
OF
FIELD
SENT
ON
REQUEST.

Sheaf of Timothy.



Kentucky Blue Grass--Continued

7 pounds of blue grass, 6 pounds of timothy and 3 or 4 pounds of clover are sown. When sown in combination with other grasses not less than 5 pounds of blue grass should be used. When sown alone 2 bushels per acre should be sown. As a general thing, grazing closely does not injure the young plants of blue grass. However, when getting established, on clay soil it should not be grazed when the soil is unduly wet.

In harvesting blue grass seed great care must be used as it is so inclined to heat, therefore the sacks in which it is gathered should be emptied each day and the seed spread out on a drying floor not over 2 inches in depth and in a good airy place. It has been known to heat and lose its germination within 24 hours.

When blue grass is sown it hardly requires any covering, as it germinates better in the light than in the dark. It is generally sown on the ground during a still day and followed closely by a roller.

MEADOW FESCUE

Meadow Fescue, also known as Tall Meadow Fescue, English Blue Grass and Randall Grass, grows slowly and takes two or three years to make a maximum production. It does not grow as early or as quickly in the spring as some other grasses, but continues to grow far into the autumn, and in mild climates even into the winter. It comes into bloom a little earlier than timothy and is adapted to growing in shady places. It is an excellent pasture grass through its ability to grow through much of the year and withstands wet and dry, cold and warm conditions remarkably well. It ranks quite high in palatability and in nutritious value, and should be given a foremost place among the grasses grown for permanent pasture. It ranks high also as a hay grass. When established in the South it is the most valuable for fall and winter grazing, especially as it retains its green color and good palatable qualities. For producing hay it is favorably reported from New York, Pennsylvania, Delaware and several New England states; is especially suited for Indiana and we have fine reports from Kansas. It is successful on the Pacific Coast from California to Alaska. It is adapted to most any soil conditions, but does best on moderately moist loams well stocked with productive elements. We would not recommend it for lands low in fertility. It is not well adapted to short rotations, in this respect being about equal to Kentucky blue grass. It requires a seed bed somewhat moist and well pulverized. When sown in the autumn the seed bed should not be so well pulverized as for spring sowing. In the North it is recommended to be sown in the spring and covered with the harrow and in the South sown in the fall. On account of the slow growth of the young plants it should be sown with a nurse crop and any of the small cereals may be used as a nurse crop. It is many times sown with timothy and if with clover the alsike is preferred as it ripens later than the medium red.

When sown alone 1 bushel of seed, 28 pounds, is about the right amount. Sown with timothy for hay, sow 14 pounds with 6 pounds of timothy. When sown with alsike clover and timothy, 14 of meadow fescue, 2 of alsike and 4 of timothy. When sown in combination with three or four other grasses 5 or 6 pounds of fescue would be sufficient.

RED TOP

A very hardy perennial, in form similar to blue grass and is very useful and valuable in meadows or pastures where the soil is moist. It is well adapted to many soils but succeeds best on rich soil with plenty of moisture. Its legal weight is 14 pounds to the bushel, but our re-cleaned seed will run from 15 to 20 pounds per measured bushel. It is very persistent in its growing habits and will hold its own against all other grasses and should always be used in pasture and meadow mixtures. Sow from 3 to 10 pounds per acre.

PERENNIAL RYE OR ENGLISH BLUE GRASS

This is a very valuable grass for pasture or lawns, and if you have a piece of ground not good enough for timothy, perennial rye will make a good hay crop. It is used exclusively for pastures and lawns and succeeds well in shady places and is especially well adapted for pasture as it will allow of close cropping and is very strong and quick in its aftergrowth. It produces an abundance of foliage which remains bright and green throughout the season and for this reason is much used for lawn grass mixtures. It is sown at the rate of from 20 to 25 pounds per acre.

PERMANENT PASTURE MIXTURES

UPLAND MIXTURE. This is a suitable mixture for the soil of the Middle West, made up of grasses of good feeding value that all kinds of stock will readily eat and relish.

LOWLAND MIXTURE. Recommended for land where drainage is not sufficient to grow the ordinary grasses, and which will convert your low wet lands into profitable pasture lands.

These mixtures make 16 pounds to sow per acre for the Upland Mixture and 18 pounds to sow per acre for the Lowland Mixture.



SUDAN GRASS

PRODUCES FROM 10 TO 20 TONS OF FEED PER ACRE

Sudan Grass is becoming more and more recognized as the greatest forage plant that has ever been introduced. It is second in feeding value to Alfalfa and far ahead of Millet.

When the low cost per acre for seeding and the immense yield are considered, it is certain that Sudan Grass is the most profitable crop that can be grown for hay and forage purposes.

Sudan Grass seems to adapt itself to any location or condition of soil.



Field of Sudan Grass.

MANNER OF GROWTH

Sudan grass will grow from 7 to 8 feet high when sown in drills and cultivated. When sown broadcast it does not grow over 5 feet high. It is very slender, the stalks being about the size of a lead pencil and are rich in nutriment. The stems are very leafy, erect and shows no tendency to lodge. It will mature in 100 days and this makes it very valuable as a catch crop.

EASILY HARVESTED

Sudan grass is easily cut with a mower and cures out readily. When wanted for seed it is harvested with a grain binder, and when cut for hay it is usually cut just after full bloom. After cutting it resumes its growth readily and will allow another cutting and in the South even four cuttings can be made.

FEEDING VALUE

Sudan grass is second to alfalfa in feeding value and far ahead of millet. It is greatly relished by all cattle and within a few days after cutting it will be found to supply very good temporary pasture. It is recommended to take the place of millets as a summer hay crop. Cut for hay it is not as seedy as the millets and you can grow a crop of it for less cost than the millets can be grown.

SEEDING

Sudan grass may be planted in cultivated rows, in close drills or broadcast. If cultivated in rows it is best to have them 36 inches apart, using about three pounds of seed per acre. It stools wonderfully and if given room this planting will make a tremendous crop. In the dry regions this is the best process for planting. If sown broadcast from 15 to 20 pounds of seed per acre is used.

A PROFITABLE CROP

Sudan grass is wonderfully productive in seed as well as hay and have heard of farmers getting a seed crop to the value of \$100 per acre. At the same time they would get a cutting for hay of from 5 to 6 tons and this is one profitable way of growing it. It seems to be the preference, however, to grow two crops of hay per season from it from broadcast seeding, cutting the growth each time just as the seed heads are forming.

PURE SEED

Our Sudan grass is Iowa grown and is sure to be free from Johnson grass, which has been mixed with the best seed that has been produced in the South. Johnson grass is a perennial, that is, it lives over the winter, while Sudan grass is an annual and will not live through the winter. Our seed is taken from fields that are sown to clean Sudan grass and you need have no fear of getting anything but pure Sudan grass when placing your order with us.

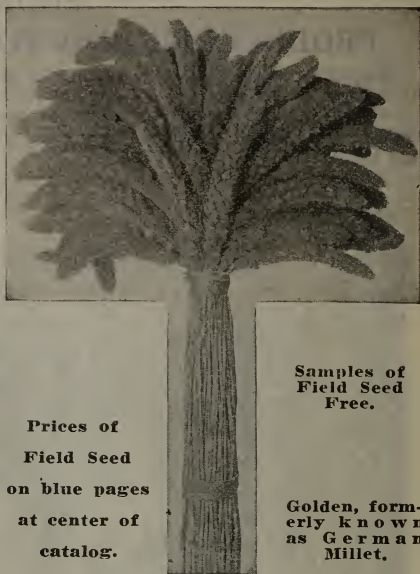
FOR PRICES OF SUDAN GRASS REFER TO THE BLUE PRICE LIST
AT THE CENTER OF THIS CATALOG.



Millets

Millets hold an important place as a supplementary crop—a "catch crop" when the corn has been destroyed by hail or otherwise, a substitute for corn where that crop is not easily grown; a crop to be grown on a piece of land where that land might otherwise lie idle; to use as a crop in short rotation; an excellent thing to grow on land to get rid of the weeds and in addition to these uses a crop to be grown for forage. It is in such ways that millets are the most valuable on the American farms.

For growing millets a fertile, mellow soil is preferable. Loams with but little clay and not too much sand give the best results. For spring sowing the land may be plowed in the same manner and, at the same time or perhaps a little later than for corn. Millets draw most of their nourishment from the surface soil. If the surface soil does not contain sufficient available plant food it should be supplied in the form of barnyard manure or commercial fertilizers. Those containing large percentages of nitrogen, phosphoric acid and potash are most valuable. Among such are muriate of potash, ground bone, cottonseed meal and tankage. The amount required depends upon the condition of the soil.



Samples of
Field Seed
Free.

Prices of
Field Seed
on blue pages
at center of
catalog.

Golden, formerly known
as German
Millet.



Siberian Millet.

As a general rule millets are sown as soon as the corn is planted and as some of the millets are sensitive to cold and frost they should not be sown until the ground is warm and danger from protracted frosts has passed. Seeding may be done broadcast or with a drill. When grown for grain it is better to drill and sow far enough apart to allow cultivation, especially when barnyard millet is planted.

From one-fourth to one-half bushel per acre is sown for a crop of hay and somewhat less for a crop of grain. Cutting foxtail millets for hay should not be delayed until the grain has begun to ripen, especially if it is to be fed to horses. On the other hand, it is not best to cut too early as the effect is liable to work as a laxative upon the animals eating it. However, it is generally safer to cut early than late. It is generally safe to cut any time from complete heading to late blooming. As one large feeder of millet who is good authority says, the time to cut millet is when a majority of the heads have distinctly appeared.

VARIETIES.

Golden Millet, formerly sold as **German Millet**, seems to take the lead in millets for hay or fodder. On good soil it grows 4 to 5 feet high, and although the hay may seem coarse, yet it is tender if cut at the right stage, when a majority of the heads have appeared. A yield of five tons per acre is not unusual. It will withstand dry weather remarkably well. About 3 pecks are sown to the acre.

Siberian Millet is extremely hardy, withstands drought wonderfully well and is about two weeks earlier than golden millet and grows from 2½ to 3 feet high.

Japanese Millet, called "**Billion Dollar Grass**," does best on soil inclined to be rather wet than dry. It is fine for silage and equal to corn fodder for milch cows. It will grow 6 to 8 feet high and yield 15 to 20 tons per acre. It may be broadcasted at 25 pounds per acre, but it is best to sow it in drills, 15 inches apart and 12 pounds to the acre. It is a very leafy millet and should not be sown too thick.



FORAGE AND FODDER PLANTS

Immense quantities of stock feed can be had by the growing of various forage crops, either for quick pasture, mixed with corn for the silo, or used as hay.

Forage for Cattle. Ordinarily the best for cattle feeding are sorghum, rape, cow peas, soy beans and millets, their value coming in the order as they are named.

Forage for Sheep. The most valuable are rape, sorghum, cow peas, millets and soy beans.

Forage for Swine. The best are rape, cow peas, soy beans, sorghum and the small grains.

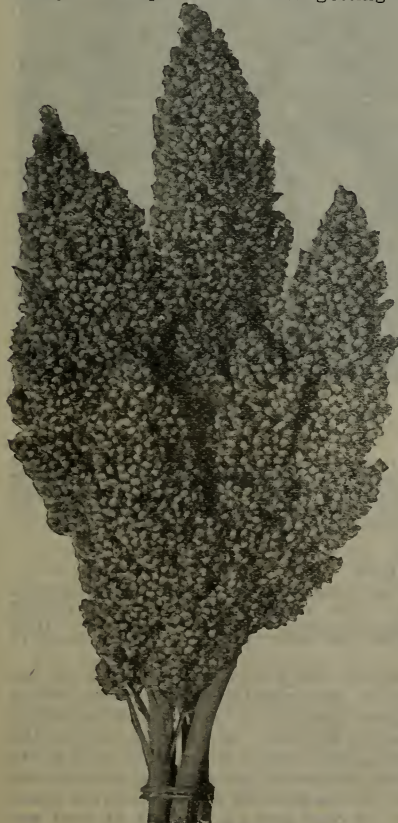
The most valuable of the pure pasture plants is rape and the most valuable of the sorghums is amber cane.

AMBER CANE FOR FODDER

Dairy stock farmers find this very valuable as it is sweet, very nutritious and greedily eaten by all stock. It is so easily grown in all parts of the country, notwithstanding drought and adverse conditions, that you are quite certain of getting a crop. It is



Amber Cane.



Feterita.

usually sown during June at the rate of 100 pounds per acre broadcast, or from 60 to 75 pounds when sown with a drill. It is cut just before frost, usually during September, with a mower and cured as hay, or with a binder and put up in bundles.

Amber cane is also grown for making sorghum syrup, and our selected stock makes beautiful colored syrup of a delicious flavor, and when grown for this purpose a seed crop can usually be harvested worth from \$35 to \$50 per acre. Amber cane will furnish as much as 7 tons of stripped cane for syrup making, which has produced as high as 110 gallons of syrup per acre.

EARLY ORANGE CANE

This is a little later to mature than the Amber and has a lighter colored seed stalk and seed head. It is considerably used as a fodder plant and many prefer it to the Amber for that purpose.

FETERITA

Feterita is similar to Kaffir corn and milo maize in its manner of growth, but earlier maturing than either of those, and very prolific in seed bearing as it will furnish 50 bushels per acre, excellent for chicken feed or for other feeding when mixed with other grains. The grains are softer than Kaffir corn and it will grow on any soil and make great quantities of fodder as the stalks are very leafy. About 8 pounds required to sow an acre.

For prices of seed on this page see blue pages at center of book.

KAFFIR CORN

Kaffir corn grows about 6 feet high, very straight and stands up well. It is very leafy and makes excellent fodder, either green or dried. About 30 bushels per acre of seed is the usual yield and stands drought remarkably well. The grain is very valuable for poultry feeding. It is cultivated the same as corn and requires 6 to 8 pounds of seed per acre if drilled and broadcast for fodder it requires from 35 to 50 pounds either drilled or broadcast.



Cow Peas

Cow peas will make poor land rich and make good land more productive. Cow peas also make a splendid and nutritious green forage of hay crop, enriching the soil even after the crop is cut off, and for silage they are unexcelled. There is no surer way of increasing the productiveness of the soil than to sow cow peas, and this is also true of the North in portions or on land where clover will not be a success. Some have confused cow peas with Canada field peas, for the reason that the cow pea is in reality a bean, therefore cow peas should not be planted until the ground has warmed up in the spring. Don't plant cow peas until June 1st or later. They do better in a hot, dry season than in a wet one and it requires from 1 to 1½ bushels per acre for sowing.

Whippoorwill Cow Peas are a general favorite, as they are an early bunch growing variety and are more easily gathered than the vine-growing sorts. They are suitable for grain or hay production.

New Era Cow Peas. This variety is a heavier yielder of seeds than the Whippoorwill and grows very upright, but makes less vine growth. As the seeds of this variety are smaller than the other kinds, it only requires from ¾ to 1 bushel for seeding.

Soy Beans

Have Double the Feeding Value of Corn.

Do you realize the great feeding value of soy beans? It is identical in feeding value to alfalfa and yields from 3 to 4 tons per acre. There is as much feeding value in 1 bushel of soy beans as in 2 bushels of corn. Soy bean meal is more valuable than cottonseed meal as a part ration in the production of pork, mutton, wool, beef, milk and butter. One acre will yield from 20 to 30 bushels of grain and from 1½ to 2 tons of straw per acre. For feeding as a hay crop it is found that if cut before the leaves fall it is as valuable for cattle feeding as timothy hay and is eaten by stock with much relish. Mixed with corn soy beans are excellent for ensilage. The two crops may be grown together, but it is better to grow them separate and mix when putting into the silo.

Harvesting should usually be done when the leaves first begin to turn yellow, when the straw is at its best and the yield of seed will be practically as large as any other time. Soy beans and cow peas grown together produce a hay mixture better than either of these grown alone. In planting the two together the seed should not be covered too deeply. They are generally sown in drills 8 to 10 inches apart, using 50 to 75 pounds of seed per acre. When planted as a mixture one-half each of this amount is sown.

We have three varieties, Black Ebony, Early Yellow and Mammoth Yellow.



Field of Soy Beans.

Black Ebony is early and successful as far north as has no frost from June 1st to September 20th. **Early Yellow** and **Mammoth Yellow** are both heavy seed bearers, the latter being the best as a hay yielder. All varieties very successful in the corn belt.

Canadian Field Peas

No other grain crop, unless it may be oats, can be devoted to as great a variety of uses. The grain is of high feeding value and also the straw. The value of the crop for soiling and fodder purposes is very great, and as a fertilizing crop peas are only excelled by clover. There is no kind of live stock on the farm that cannot be fed with this crop with a positive advantage.

Some sow the seed broadcast and plow it under, but on heavy soils this would bury the seed too deeply. On fall plowed lands the best way is to pulverize the soil and sow with a grain drill. The depth of sowing varies from 2 to 5 inches, sowing deeper on prairie soils than on clay or stiff soils. It should be sown as early as the soil can be worked freely, but they will suffer less in comparison with other crops if the sowing is delayed. The amount sown per acre varies with the richness of the soil and from 2 to 3½ bushels per acre are sown. It is many times sown with oats, using 1 bushel of oats and 1½ bushels of peas per acre, and these are ground together as a fattening food for stock.



Dwarf Essex Rape



Dwarf Essex Rape.

READY FOR PASTURE IN ABOUT SIX WEEKS AFTER SOWING. THE MOST POPULAR AND PROFITABLE OF ALL ANNUAL FORAGE CROPS.

Rape is easily grown anywhere and is unsurpassed for pasturing hogs, cattle and sheep. They always thrive on it and prefer it to any other pasture during the summer, late fall and even into the winter, in some sections. It is generally sown in June, July and August with corn or can be sown early with small grain to provide pasture after the grain is harvested and this is an excellent plan. It is also sown alone on well-prepared land for summer and fall pasture and has yielded 20 tons per acre.

At the Iowa Agricultural College at Ames, Iowa, 60 bushels of oats and 18 tons of rape were grown on one acre. This of course was a test that was given unusually good attention, but shows how profitable it can be made, and will always make a profitable crop.

Rape and oats can be sown together and the rape will not interfere seriously with the harvesting of the oats. It has been shown that one acre of good rape will carry a flock of 12 sheep for two months, also an acre of rape produced as much gain on pigs when used as a pasture crop along with grains, as 56 bushels of corn would do. We have one account of a farmer sowing 3 pounds of rape per acre on four and one-half acres, into which he turned 80 head of hogs and 40 pigs and pastured them until October. It grew so rapidly that it furnished an abundance of feed during that time. In addition to the feeding value the stock seem to gain faster and become stronger than if fed only on grain.

The cost of producing an acre of rape is much less than producing an acre of corn and the value of rape should warrant it being grown on every farm where hogs are raised.

In sowing rape some use not over 2 pounds to the acre with good results, but it is generally sown at the rate of 3 or 4 pounds per acre in drills, and from 6 to 8 pounds when sown broadcast.

SWEET CORN FOR FODDER.

In our large growing fields of sweet corn, we always have some stock that we do not put out as sweet corn for growing in gardens, but such stock is of good germination and makes excellent fodder corn, and there is nothing better than to have a patch of sweet corn for fodder. Some of this seed will be mixed as to varieties and we can make the price low enough on this stock that it is a bargain to anyone.

Sweet corn makes an abundance of rich and sweet fodder that all stock will eat greedily and do well on it.

Prices for this stock will be found on the blue pages at center of catalog.

ROOT CROPS FOR STOCK FEEDING.

When considering profitable crops for stock feeding do not overlook the root crops. Of these we consider the mangels the most prolific in yield. They are sown in April or May in drills 3 feet apart and thinned to 10 inches apart in the row. Immense crops, even to 1,000 bushels per acre have been grown and it costs, with labor and use of ground, not over \$50 per acre to grow this immense amount of feed, which would make the cost about 5 cents per bushel and is excellent feed for all live stock—horses, cattle, pigs, sheep and chickens.

Dairymen have demonstrated that a bushel of mangels and a bushel of corn are worth more for feed than two bushels of corn.

Five pounds of seed is generally sown to the acre.

"Washington Quality" Lawn Grass



"Washington Quality" Lawn Grass has produced some of the most beautiful and serviceable lawns on both public and private grounds.

We have made a close study of the best grasses for the lawn and have experimented with many combinations of grasses, so that the "Washington Quality" mixture is not a thoughtless, thrown-together mixture of three or four grasses, but made from the best known sod-making mixtures, many of the grasses imported and not generally sold in this country.

By the use of this mixture a deep, green velvety lawn may be had in from five to seven weeks on well-prepared ground, instead of waiting months before you can expect any results.

The value of a lawn mixture is one that contains grasses that are their best at different seasons of the year, as some that thrive in the spring, others in the mid-summer season and others thrive best in the fall or autumn, and enough of them of each class so that a rich color is had at all seasons.

DIRECTIONS FOR MAKING LAWNS.

Preparing Soil. If the ground is ordinarily rich, all that is necessary is to spade it deeply and then work it until the soil is mellow and fine. If the ground is of poor quality, such as earth thrown out from excavations, it should have some fertilizer, such as stable manure, sheep's manure or wood ashes. There is objection to the stable manure as it contains weed seeds, and therefore we recommend sheep's manure of the commercial kind that is free from weed seeds. About 50 pounds of fertilizer should be applied to every 1,000 square feet of space on new ground or half this amount on lawns being worked over. It should be spread as evenly as possible and then raked in thoroughly.

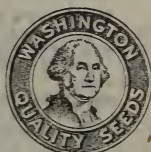
Sowing Seed. On new ground about 100 pounds to the acre should be used, or about half this amount in replenishing old lawns, sowing the seed either in the spring or the fall and at this rate of seeding, 1 pound of seed would be used to a square rod or each 250 square feet, approximately. Sow seed after the surface has been freshly raked and sow as evenly as possible, raking it in, after which it should be rolled thoroughly.

For prices of "Washington Quality" Lawn Grass see blue pages at center of book.

Special information regarding lawns will be furnished upon request.



BRUNS CHOICE FLOWER SEED



Put up in beautifully colored lithographed packets that show the natural colors of the plant and flower of the variety purchased. A great advantage to the flower lover, as by knowing the exact colors of the flowers to be produced, you can more intelligently arrange your planting scheme for the best color effects. Very complete culture directions, printed on the back of all packets.

In our list on annuals and perennials grown from seed, will be found only those kinds sure to give satisfaction; that may be grown under ordinary conditions and make a generous and beautiful display. We do not list many unimportant varieties, difficult to grow and shy bloomers, or kinds that require just a certain temperature or moisture or otherwise expert handling and still make a weak display. Rest assured that you will succeed with anything we offer in flower seed. They are all good blooming varieties, new crop seed, shown by a careful test to be strong in germination.

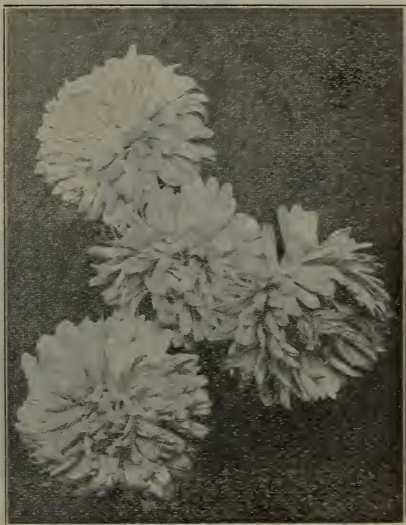
Alyssum: Little Gem or Carpet of Snow. This beautiful well known edging plant can be used for many purposes. Its bloom is pure white and there is nothing better for borders or for growing in masses. It is fine for pot culture, especially for growing in hanging baskets. It blooms continually from spring until frost and many times after the first frost. Pkt., 5c; 3 for 12c.

Ageratum: Little Blue Star. The best there is in a low growing blue flowering plant for borders and a good companion to use in connection with alyssum. The contrast of blue and white is very pretty. Pkt., 10c; 3 for 25c.

Aster: American Beauty Collection. These asters are shown in colors on the back cover. The varieties we selected, to make up this collection are unusually clear in their colors and very handsome. Their colors of white, pink and blue make a pretty combination that are fit for any purpose. The flowers are on long stems and as soon as the flower buds are set on the plants, we suggest that you pinch off the smaller secondary buds and one only to remain at the end of each main branch, thus growing aster of large size and perfect shape and there will be plenty of them to each plant as the plants are very branching. Pkt., mixed colors, 15c, 3 pkts., 35c.

Asters: Bruns Giant Crego. The flowers of this beautiful aster are five inches and over in diameter, the chrysanthemum like petals form flowers of a beautiful and lasting substance and are unsurpassed for cut flowers. To our notion it is the most beautiful shaped aster. Pkt., 10c.

Bruns Choice Mixed Asters. We put up a mixture of all the asters we catalogue, with some other fine kinds added, which will give you the earliest as well as the latest kinds and all shapes and sizes. Pkt., 10c; 3 pkts., 25c.



Bruns Peony Flowered Aster



Simple Branching Asters

Peony Flowered Perfection. The large flowers 3 and 4 inches in diameter are borne on long stiff stems. The petals incurve, giving them a ball like appearance resembling a peony. The plants are about 20 inches in height. Pkt., 10c.

Giant Comet. This large handsome aster is sure to please everyone. Produced on long stiff stems, petals curved and twisted and show beautiful colors. They grow 18 inches high and are very fine for cut flowers. Pkt., 10c.

Simple Branching. These are the latest flowering asters and plants grow about 30 inches high. The flowers are large and show very delicate colors and beautiful shape. Pkt., 10c; 3 pkts., 25c.

Bruns Earliest Blooming. This is the earliest strain we have ever known, secured from an aster specialist. The flowers are on long stems, are very double and will bloom three weeks ahead of any other kind. Pkt., 10c; 3 pkts., 25c. Put up in mixed colors.

Bachelor's Button: A favorite hardy annual that produces flowers in many colors. The flowers are mostly in the shades of blue and will reseed themselves coming up each year. Pkt., 5c.

Butterfly Bush. (Schizanthus). Called the poor man's orchid and a neat pyramidal bush covered with butterfly-like flowers of the most brilliant and striking colors. Blooms well in the summer or planted in October blooms during the winter as a house plant. Pkt., 5c.

Calliopsis. They make very graceful border plants and bloom all summer with an abundance of small but elegant and showy flowers that thrive anywhere, are greatly prized for bouquets and cut flowers. Pkt., 5c.

Candytuft. They flower early from seed and fine for massing in flower beds or for borders or as cut flowers. **White Empress** is pure white and greatly prized among the flower lovers. **Umbellata Mixed** gives large flowers in colors of carnation, crimson and lilac and many other shades and tints. Pkt., 5c.



Celosia—Coxcomb

Canary Bird Vine. A dainty vine with beautifully cut leaves and pretty delicate flowers of a canary-yellow, in shape resembling a bird with its wings expanded. Pkt., 5c.

Castor Oil Bean (Ricinus.) A handsome large growing plant, many times 15 to 18 feet high if started inside and set out when danger of frost has passed. They are the most tropical appearing of any of the large plants. The gigantic leaves measure from 2½ to 4 feet across and our mixed varieties includes all the best kinds. Pkt., 5c; 3 pkts., 12c.

Celosia: Coxcomb. This is the best of these large flowers, producing large heads of a beautiful dark red color of a velvety or plush texture. They grow about 3 feet high and sure to succeed everywhere. Pkt., 10c.

Celosia: Thompsoni. This celosia has plume-like heads of dazzling colors and is the very best kind of this type. Their color is a rich ruby red that is unusually attractive. Pkt. 10c.



Canterbury Bells

Canna. Cannas can be grown from seed and will attain a height of from 3 to 8 feet. After growing them from seed you can save the roots of those most cared for and set the roots the following spring. It is the cheapest and most satisfactory way to get a start of the most valuable kinds. Pkt., 5c.

Canterbury Bells (Campanula). Very fine hardy plants profusely covered with extremely showy bell-shaped flowers, in single, semi-double and double forms in shades of blue, white and rose with some of the blooms 3 inches in length and 3 inches across of beautiful waxy texture. Pkt., 5c.

Carnation: Marguerite is a fine strain of carnation blooming from seed in four months. Is good for bedding or pots and the flowers are very double and have very delicate shades as well as strong colors in white and red. Can be grown outside and taken up and will bloom through the winter. Pkt., 10c.

Chrysanthemums: Annual Double White. We list this color only as it is the most successful of those that can be grown from seed. Start the plants inside and set out after frost danger has passed and they will produce lovely flowers that are second to none in chrysanthemums. Pkt., 5c.



Carnations—Marguerite.



Colens or Foliage Plant. Our seed mixture is saved from plants showing the choicest colors and best shaped leaves. By all means you should have some of these plants. They may be taken up in the fall and potted for house culture or the seed can be sown at any time for house blooming plants. They like good soil and plenty of water and there is nothing better for a border plant or for making solid flower beds. **Pkt., 20c; 3 pkts., 50c.**



Dianthus—Hardy Garden Pinks

Columbine. One of the best of the hardy plants, bearing flowers of exquisite clear blue, white, rose, yellow, purple and striped colors. A fine plant for the shrubby border or grown as single specimens. **Pkt., 10c.**

Coreopsis: Perennial Yellow. These small yellow flowers of a daisy-like pattern will bloom through the whole summer and make a striking appearance as a yellow border plant and one of the very best for that purpose. Are also fine as a cut flower and are entirely hardy. **Pkt., 10c.**

Centaurea (Corn Flower.) This is the same as Bachelor's Button, known as Ragged Sailor, Blue Bottle. It is an old fashioned reliable blooming plant with striking blue flowers, well worth their space wherever they may be grown. **Pkt., 5c.**

Cypress Vine. This is a beautiful and delicately formed vine with star-shaped flowers that make a fine effect. Its fine hair-like foliage is always a rich green color, it is a good climber and sure to succeed. **Pkt., 5c.**

Dahlia: Double Large Flowering. Dahlias can be grown the first season from seed. You will get many fine varieties in this way and those that want to be saved can be taken up and the roots set out the following season and you can soon get a big stock of the most showy and best blooming kinds. Our seed is saved from all of the very best of the double flowering and is especially choice. **Single Mixed Varieties.** There are many very beautiful single flowering dahlias some of them making a greater display than the double kinds. They are easy to grow and this seed will produce a wonderful variation in sizes, colors and shapes. **Single Mixed, pkt., 5c; Double Mixed, pkt., 15c.**

Cosmos. Early Flowering cosmos grows about 3 feet high and blooms during the early summer and up to frost in the fall. **Giant Flowering** cosmos grows about 5 or 6 feet high and has larger flowers as a rule than the early flowering kinds. The colors of these flowers run in the pure white, pink and all the very dark red shades and our seed is from the best specimen plants of the most attractive colors and of large size. **Pkt., 5c; 3 pkts., 12c.**

Dianthus: Hardy Garden Pinks. This is a flower that gives a world of satisfaction as a permanent garden flower. Its brilliant carnation-like flowers with their attractive spicy fragrance give you as much in beauty and fragrance as anything we could name. Are perfectly hardy and will increase in size and strength the longer you grow them. **Pkt., 5c.**

Everlasting (Helichrysum.) These old fashioned flowers are still considered very useful. Many of them have fine colors and very odd shapes and they are well worth growing. If cut when they come into bloom and hung with heads down and allowed to dry gradually in a shaded place they will be straight and perfect in shape and last forever. Our mixture of seed comprises all the best there is in these wonderful flowers. **Pkt., 5c.**



Dahlias grown from seed

Feverfew. These are fine plants for bedding, growing about 3 ft. high, with large double flowers pure white in color. They are well adapted for bedding or as house plants. **Pkt., 10c.**

Forget-Me-Not. Alpestris Blue. This is a grand free flowering sort and the best of these dainty elegant little flowers. They flower freely in the early spring and again in the fall. They love a shady damp position and reseed themselves by self seeding. They are fine for pot culture or for borders. **Pkt., 10c.**

Four O'Clock. Marvel of Peru. A well known hardy annual that succeeds everywhere. The plants grow 2 feet high, fully covered all summer with hundreds of showy sweet scented flowers. The flowers open about 4 o'clock in the afternoon and remain open until about 10 o'clock the following day. **Pkt., 5c.**

Foxglove or Digitalis. Produces long spikes of richly colored flowers that are excellent for cutting. They grow from 3 to 5 feet and are in many colors in white, pink, purple, yellow and many various shades. Excellent for borders. **Pkt., 10c.**

Geranium. Our seed from the single and double mixed kinds will produce many beautiful plants, many of which you will want to keep and can slip from. The colors will range from snow white to dark red. Some of the single flowers are from 2 to 3 inches in diameter and the trusses from 5 to 8 inches across and many of them perfect ball-shaped. Geraniums grown from seed are very sturdy and they commence blooming in from 4 to 5 months after sowing the seed. **Pkt., 20c.**

Gaillardia. Single and double mixed. There is nothing more admired for their rich blending of colors than the gaillardia. They thrive everywhere and their colors are very gorgeous. The plants grow from 1 to 2 feet high and the double daisy-like flowers are very fine for cutting. **Pkt., 5c.**

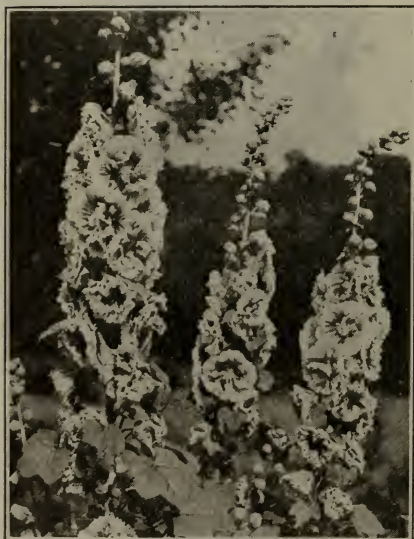
Heliotrope. Fine Mixed. A universal favorite on account of its delightful fragrance and



Gaillardias



Heliotrope



Hollyhock Mammoth

duration of bloom, flowering equally as well as bedding plants or a pot plant for house culture during the winter. Seed sown, early in the spring make fine bedding plants for bedding out and are easy to grow as verbenas. The blossoms range from white and tinted shades through to violet and the deepest purple. **Pkt., 15c.**

Hollyhock. Everblooming Annual. The annual kind bloom the first year from seed. Sown in May they will flower in August but if started inside and set out early they will bloom in July. They are free bloomers and continually in bloom throughout the season. **Pkt., 5c.**

Mammoth Hollyhock Mixed is the variety that does not bloom the first year from seed, but will bloom the second and thereafter and produce immense flowers. This variety can be planted during July and August and will bloom the following summer. **Pkt., 10c.**



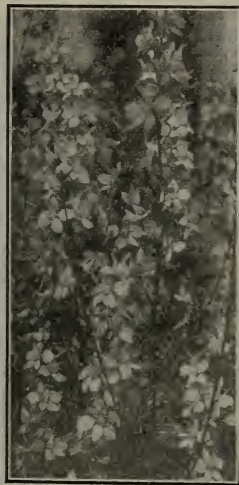
Hop Vine: Japanese. A handsome vine growing from 20 to 30 feet in a season, the leaves striped, and variegated and make a charming effect. One of the best for covering verandas and trellises. It stands drought remarkably well and insects do not bother it.

Job's Tears. A hardy ornamental grass with broad corn-like leaves and hard shining seed of grayish color. Are very ornamental as edging plants and grows 2 feet high. The seed have been used for making strings of beads. **Pkt., 5c.**

Kochia Scoparia or Summer Cypress. Also called "Burning Bush." It is perhaps the best of the border plants for enclosing grounds. The plants set about one foot apart and trimmed on top make a fine border from 2 to 3 feet high of a bright green color and later in the fall turn a bright red. The best drought resisting plant we know of as it always looks fresh and green in the hot sun on very poor soil. **Pkt., 5c.**

Larkspur: Giant Emporia Mixed. This is the finest of the large growing kinds and very effective when planted in borders, forming large spikes of flowers of dark and light shades of blue and entirely hardy. The **Double Hyacinth Flowered** have larger and thicker spikes than any other kinds and remind us of the regular hyacinth bloom. They are very handsome and well worthy the space as the best of the hardy border plants. **Pkt., 5c.**

SPECIAL OFFER



Larkspur Emporia

Ten packets of flower seed, your own selection, postpaid, for one-fourth off from regular prices.

Lobelia. We have the **Deep Blue** and the **Pure White** and they are an excellent plant for window culture as they bloom in four weeks from seed, with colors exceedingly clear on compact little bushes about 6 inches high. They bloom throughout the entire season. **Pkt., 15c.**

Marigold: African marigold, the tall growing makes bushes about 3 ft. high and with very double flowers 3 inches in diameter with colors all through the shades of brown and yellow.

French Dwarf Mixed is the short growing kind that are very interesting, as many of the flowers are solid colors, while some of them are striped and variegated and useful as cut flowers or for border. **Pkt., 5c.**

Mignonette: Defiance. Mignonette is noted for its delightful fragrance and is very useful in the garden for using in the making up of bouquets more on account of its fragrance. It grows very readily under ordinary conditions and should have a place in every flower garden. **Pkt., 5c.**

Morning Glory, Japanese. The morning glory of the largest size with colors and markings that are beyond descriptions, from snow white to blackish-purple, also red, copper, carmine, crimson, maroon, bronze and cherry red. Our seed mixture gives all the best there is in this beautiful flower. **Pkt., 5c; 3 pkts., 12c.**

Moonflower Vine. A rapid climbing annual with immense white flowers 4 and 5 inches across, of a morning glory shape, but opening flat early mornings and at night. If given a sunny situation and plenty of moisture it will grow 40 or 50 feet in a season. The flowers are very fragrant and make a charming effect wherever they grow. **Pkt., 8c.**



African Marigold

Nasturtiums, Tall Growing. The Giant Climbing is the best of the climbers as the leaves are the most attractive and the flowers are held out from the foliage better. The foliage is very dark green and the flowers of a great variety of colors measure as much as 3½ inches across. **Dwarf or Tom Thumb** nasturtiums are fine for bedding and have large flowers of every known color with a goodly mixing of the darker shades. It is well to plant the mixed, tall and short growing for bedding as the tall growing hold up the mass of foliage and they make a better effect than as if the dwarf kinds only were planted. **Pkt., 5c; oz., 15c.**

Petunias

Snowball White. The best of the double white, very round in form, and always attracts attention. **Pkt., 20c.**

Giants of California. A mammoth single petunia, but so large and ruffled that it has the appearance of a double flower. Are pure white in color and 5 inches across. Very beautiful. **Pkt., 20c.**

Hybrids Mixed. This gives you everything of value in a petunia and has been very satisfactory with our customers as it produces all shapes, sizes and colors. **Pkt., 10c.**

Double Mixed. We take great pride in this mixture and it contains only the double varieties of the best types. **Pkt., 15c.**



Nasturtium, Tall Growing

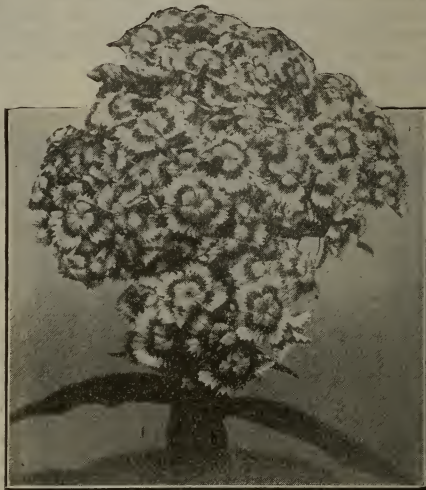


Double Petunia

Phlox. Our **Grandiflora Mixed** will be found to produce all the shades in red, crimson, rose, violet and purples and the best in the striped kinds. There is nothing better than the annual phlox for bedding as its bright colors cannot be excelled. It is one of the easiest of the annuals to raise and gives a wonderful range of colors. **Pkt., 15c.**

Portulaca, Double Mixed, or Rose Moss. These plants will grow and bloom profusely in a dry hot situation, where almost any other plant would soon die and they are easy to transplant. They should be sown in May. For brilliancy and unique colors portulaca excels all other bloom. They are absolutely easy to grow and after you once see their beautiful colors you will not be without them. The **Single Mixed** show very beautiful colors and perhaps show a more solid carpet of bloom and there seems to be more striped varieties in the single flowers than in the double. **Pkt., 10c.**

Poppies, Giant Shirley. The shirley poppies all have white centers and range in other colors from delicate shades of rose, apricot, salmon-pink and blush to glowing crimson, all having a beautiful silky-like texture and the blossoms are large and always attract great attention. **Carnation Flowered** poppies show the most exquisite colors of any, produced in shades and tints impossible to describe. They have fringed petals tinted at their edges with delicate colors that make them a very dainty flower. **California Poppy** comes mostly in shades of yellow, but in ours will produce pure white, blush, rose and carmine that make a beautiful display in the flower bed. **Pkt., 5c.**



Phlox, Grandiflora



Poppy, Giant Shirley

Pansy. Bruns Superb Mixture. We do not list separate varieties this season but in this mixture you can get the best there is in the richest and handsomest of the mammoth flowering kinds known. If you sow this mixture in good soil you may expect blossoms two inches across. It includes all the ruffled kinds of value, many of them in straight colors as well as the best of the variegated colors. **Pkt., 15c.**

Salpiglossis. Those not familiar with this flower do not realize its beauty. It is a bell-shaped flower of unusually beautiful veining and odd markings, and makes a combination of light and dark colors difficult to describe. Its colors are exceedingly rich in yellow, brown, bronze, copper and old gold and the texture of the flower is a velvety substance that will last a long time when cut and kept in water. Are entirely easy to grow and succeed everywhere. **Pkt., 10c.**

Salvia or Scarlet Sage. A plant that is very popular as a border plant, especially well for edging around the porch as a group of them make a dazzling scarlet effect. They are fine for bedding and should be started inside and set out after danger of frost has passed. **Pkt., 15c.**

Scabiosa (Mourning Bride). Produces its flowers on long, airy stems and fine for cutting. The very double flowers have the center made up of finely cut petals, with a row of wide petals around the outer edge that make a pretty combination and grow deep red and pink and some with very dark shades. **Pkt., 5c.**

Smilax. A climbing plant that holds beauty in its rich dark green shiny foliage. When grown in hanging baskets it droops in a graceful manner that makes it a favorite for that use. **Pkt., 5c.**

Snapdragon (Antirrhinum.) These tall growing plants have spikes of flowers of very gorgeous colorings, growing to a height of about 2 feet, fine for flower beds or borders, and can be cut back in September and potted for winter flowering. All the best colored kinds are produced from our selection of seed. **Pkt., 15c.**

Sunflower. The Double Dwarf or Globes of Gold is very double and round in form. They make a stately growth and remain in bloom for a long period. As a background for the garden they are very useful. **Pkt., 5c.**

Sweet Sultan. Imperialis is the finest of these flowers, very artistic in shape and very fragrant. The flowers are borne on long wire-like stems and will last for several days when cut for decorative purposes. **Pkt., 5c.**

Sweet William. A well known hardy flowering perennial that is fine for beds and for borders. Each season the plants multiply and may be divided up at the roots and spaced out. We have a seed assortment saved from the best colored specimens that will be found better than the average mixture of seed offered. **Pkt., 5c.**

Stocks. The Ten Weeks stocks produces immense spikes of perfectly double flowers, measuring from 2 to 2½ inches in diameter in colors of white, rose, blue, lilac, brown and yellow. They are very fragrant and fine to grow for cut flowers. Our assortment of seed includes all the best colored and double kinds. **Pkt., 10c.**

Verbena. One of the most useful of the annual, easily grown flowers, fine for beds, borders, mounds, vases and window boxes and frequently used as an undergrowth for tall plants such as lilies. They grow only about 9 inches high and are loaded with bloom from June until frost in the fall. Our **Mammoth Choice Mixed** gives all the best in colors of this very popular annual. **Pkt., 10c.**



Bruns Superb—See Description Page 76.



Snapdragon

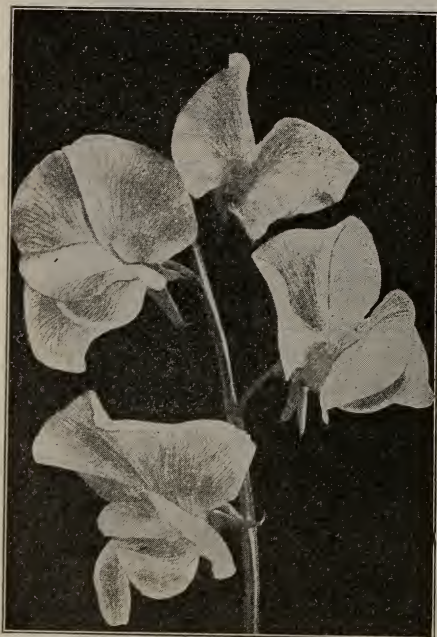
Wallflower. Dwarf Double Branching Mixed. Wallflowers should be better known, as their adaptability for pot culture and out-of-door bedding and the peculiar sweet fragrance of the flowers make them a great favorite with all that grow them. The oriental colorings of the flowers in their rich reds and yellows is very effective. **Pkt., 10c.**

Special offer—10 packets flower seed, your own selection for ¼ off from listed prices.

Wild Cucumber Vine. One of the quickest growing climbers on our list, reaching 30 feet in a season and having pretty white flowers, followed by ornamental and prickly seed pods. Its foliage is very dense. **Pkt., 5c.**

Stocks.* The **Ten Weeks** stocks produces immense spikes of perfectly double flowers, measuring from 2 to 2½ inches in diameter in colors of white, rose, blue, lilac, brown and yellow. They are very fragrant and fine to grow for cut flowers. Our assortment of seed includes all the best colored and double kinds. **Pkt., 10c.**

Spencer Mixed: or Butterfly Varieties. In offering this mixture we are giving our customers the cream of the list in all possible color variations. It includes the earliest flowering and those most striking in appearance and there is no better Spencer Mixed Sweet Peas than our offer, which is very reasonable in price. Sweet peas are generally grown in a mixture and therefore we have not listed named varieties this season separately on account of the shortage of seed, but give the customer the advantage of getting some of all of the best at the price that some charge for one variety. **Pkt., 10c; 3 pkts., 25c.**



Sweet Peas

Sweet Peas: Our Gorgeous Mixture Sweet Peas, shown in color on the back cover, contains the most careful selection of large flowering and strong growing kinds and takes in all the best colored varieties, so that no better display can be made than is produced by the planting of this Mixture. Some of the Spencer types are in this assortment as everything has been included to make it in reality a Gorgeous mixture. **Pkt., 10c; 3 pkts., 25c.**

Violets. Sweet Scented. This is the true blue violet greatly prized for their flowers. They are about 6 inches high and hardy. The seed germinates slowly and should be sown in rich mellow soil. **Pkt., 15c.**



ASSORTED-ZINNIAS

Zinnias, Assorted



Chinese Wool Flower

Zinnias. Mammoth Mixed. They are the easiest of plants to grow and you get a great variety of colors. They are useful for beds or borders and the dwarf kinds are fine when grown as pot plants. Our mixture of seed comprises all the best and most showy kinds. Sure to make a good display. **Pkt., 5c.**

Vinca. (Periwinkle) Very ornamental free blooming plants about one foot high with dark brown laurel-like foliage and handsome pink and white flowers. Plants will bloom the first summer if seed is sown early and they may be taken up and potted in the fall for house growing. **Pkt., 10c.**

Chinese Wool Flower. This is the finest type of Celosia there is and has made a great sensation wherever grown. They are easily grown and have a plume-like head of dazzling colors in various shades of dark red and purplish-red. Are very valuable for decorative purposes and keep a long time when cut and placed in water. **Pkt., 10c.**

REFERENCE TABLES

NUMBER OF PLANTS TO THE ACRE AT GIVEN DISTANCES.

Dis. apart.	No. plants.	Dis. apart.	No. plants.	Dis. apart.	No. plants.
12x 1 in.	522,720	30x16 in.	13,068	48x36 in.	3,680
12x 3 in.	174,240	30x20 in.	10,454	48x48 in.	2,728
12x12 in.	43,560	30x24 in.	8,712	60x36 in.	2,901
16x 1 in.	392,040	30x30 in.	6,970	60x48 in.	2,178
18x 1 in.	348,480	30x 3 in.	58,080	60x60 in.	1,743
18x 3 in.	116,160	36x12 in.	14,520	8x 1 ft.	5,443
18x 6 in.	29,040	36x18 in.	9,680	8x 3 ft.	1,815
18x18 in.	19,360	36x24 in.	7,260	8x 8 ft.	680
20x 1 in.	313,635	36x36 in.	4,840	10x 1 ft.	4,356
20x20 in.	15,681	42x12 in.	12,446	10x 6 ft.	726
24x 1 in.	261,360	42x24 in.	6,223	10x10 ft.	435
24x18 in.	15,520	42x36 in.	4,183	12x 1 ft.	3,680
24x24 in.	10,890	48x12 in.	10,890	12x 5 ft.	736
30x 1 in.	209,088	48x18 in.	7,790	12x12 ft.	302
30x 6 in.	34,848	48x24 in.	5,445	16x 1 ft.	2,722
30x12 in.	17,424	48x30 in.	4,356	16x16 ft.	170

QUANTITY OF SEED REQUISITE TO PRODUCE A GIVEN NUMBER OF PLANTS AND SOW AN ACRE.

Quantity per acre.		Quantity per acre.	
Asparagus, 1 oz. to 800 plants.	4 lbs.	Spinach, ½ oz. to 100 feet of drill.	8 lbs.
Asparagus roots.	1000 to 7250 lbs.	Summer Savory.	8 lbs.
Barley.	120 lbs.	Sunflower.	8 lbs.
Beans, dwarf, 1 lb. to 100 ft. of drill.	60 lbs.	Squash, summer, 4 oz. to 100 hills.	2 lbs.
Beans, Pole, 1 lb. to 100 hills.	9 lbs.	Squash, winter, 8 oz. to 100 hills.	2 lbs.
Beet, garden, 1 oz. to 100 feet of drill.	7 lbs.	Tomato, 1 oz. to 2,000 to 3,000 plants.	1 to 3 lbs.
Beet, Mangel, 1 oz. to 100 feet of drill.	5 lbs.	Tobacco, 1 oz. to 5,000 plants.	
Broccoli, 1 oz. to 5,000 plants.	2 lbs.	Turnip, 1 oz. to 250 feet of drill.	1 to 3 lbs.
Brussels Sprouts, 1 oz. to 5,000 plants.	2 lbs.		
Buckwheat.	15 to 25 lbs.		
Cabbage, 1 oz. to 5,000 plants.			
Carrot, ¼ oz. to 100 feet of drill.	2½ lbs.		
Cauliflower, 1 oz. to 5,000 plants.			
Celery, 1 oz. to 15,000 plants.			
Clover, Alsike.	15 to 25 lbs.		
Clover, Alfalfa or Lucerne.	8 to 12 lbs.		
Clover, Mammoth.	8 to 12 lbs.		
Clover, Medium.	8 to 12 lbs.		
Clover, White Dutch.	6 lbs.		
Collards, 1 oz. to 5,000 plants.	4 lbs.		
Corn, rice shelled.	12 lbs.		
Corn, sweet, ¼ lb. to 100 hills.	60 lbs.		
Cowpea, in drills.	12 lbs.		
Cress, ¼ oz. to 100 feet of drill.	1 to 3 lbs.		
Cucumber, 1 oz. to 100 hills.	4 oz.		
Dill, 1-3 oz. to 100 feet of drill.	4½ lbs.		
Egg Plant, 1 oz. to 2,000 plants.	30 lbs.		
Endive, ¼ oz. to 100 feet of drill.			
Flax, broadcast.			
Garlic, bulbs, 1 lb. to 100 feet of drill.			
Gourd, 2 oz. to 100 hills.	15 to 20 lbs.		
Grass, Blue, Kentucky.	20 to 25 lbs.		
Grass, Millet.	60 to 100 lbs.		
Grass, Mixed Lawn.	8 to 10 lbs.		
Grass, Red Top Fanny.	10 to 15 lbs.		
Grass, Rhode Island Bent.	25 to 35 lbs.		
Grass, Timothy.	25 to 35 lbs.		
Grass, Orchard, Perennial Rye and Wood Meadow.	35 lbs.		
Hemp.	4 lbs.		
Kale, 1 oz. to 5,000 plants, or 200 feet of drill.	4 lbs.		
Kohl Rabi, 1-3 oz. to 100 feet of drill.	4 lbs.		
Leek, 1 oz. to 100 feet of drill.	3 lbs.		
Lettuce, ¼ oz. to 100 feet of drill.	3 lbs.		
Melon, Musk, 1 oz. to 100 hills.	1 to 3 lbs.		
Melon, Water, 4 oz. to 100 hills.	1½ to 4 lbs.		
Millet.	12 to 25 lbs.		
Okra, 1 oz. to 100 feet of drill.	8 lbs.		
Onion seed, 1-3 oz. to 100 feet of drill.	4 to 6 lbs.		
Onion sets, 2 lbs. to 40 feet of drill.	40 to 80 lbs.		
Onion sets, 2 lbs. to 40 feet of drill.	250 lbs.		
Parsnip, ¼ oz. to 100 feet of drill.	3 lbs.		
Parsley, ¼ oz. to 100 feet of drill.	3 lbs.		
Peas, garden, 1 lb. to 100 feet of drill.	55 to 120 lbs.		
Peas, field.	120 lbs.		
Pepper, 1 oz. to 1,500 plants.			
Pumpkin, ¼ lb. to 100 hills.	3 to 4 lbs.		
Radish, 2-3 oz. to 100 feet of drill.	10 to 12 lbs.		
Radi Baga.	2 to 4 lbs.		
Rye.	60 to 80 lbs.		
Sage in drills.	4 to 5 lbs.		
Salsify, ½ oz. to 100 feet of drill.	8 lbs.		

LEGAL WEIGHTS AND MEASURES—POUNDS PER BUSHEL.

Articles.	Ill.	Ia.	Wis.	Mch.	Ind.	Mo.	N.Y.	Ohio
Apples, dried.	24	24	28	22	25	24	25	25
Apples, green.	50	48	44	..	..	48	48	48
Bran.	20	20	20	20	..	20	20	20
Barley.	48	48	48	48	48	48	48	48
Beans, white.	60	60	60	60	60	60	60	60
Buckwheat.	52	48	50	48	50	52	48	48
Broom corn seed.	48	50	46	46	46	46	46	30
Beets.	60	56	50	..	..	60	56	56
Carrots.	50	50	50	..	..	50	50	50
Corn, shelled.	56	56	56	56	56	56	56	56
Corn, ear.	70	70	..	70	68	70	..	68
Corn meal.	48	48	50	50	50	50	50	50
Flax Seed.	56	56	56	56	56	56	55	55
Grass Seed, Blue.	14	14	14	14	14	14	14	14
" Clover.	60	60	60	60	60	60	60	60
" Hungarian.	50	50	48	50	..	48	48	50
" Millet.	50	50	50	50	50	50	50	50
" Orchard.	14	14	14	14	14	14	14	14
" Red Top.	14	14	14	14	14	14	14	14
" Timothy.	45	45	45	45	45	45	45	45
Hickory Nuts.	50	50	50	50	50	50	50	50
Oats.	32	32	32	32	32	32	32	32
Onions.	57	52	50	54	48	57	57	57
Onions, sets.	50	50	50	50	50	50	50	50
Parsnips.	50	50	50	50	50	50	50	50
Potatoes.	60	60	60	60	60	60	60	60
Potatoes, Sweet.	50	50	54	56	55	56	54	54
Peas, dried.	60	60	60	60	60	60	60	60
Peas, in pods.	32	32	32	32	32	32	32	32
Rye.	56	56	56	56	56	56	56	56
Salt, coarse.	55	80	70	..	..	50	50	50
Salt, fine.	50	80	50	56	50	50	56	56
Turnips, Rutabaga.	55	55	56	58	55	50	55	60
Turnips, White.	42	42	42	42	42	42	42	42
Wheat.	60	60	60	60	60	60	60	60

AVERAGE TIME REQUIRED FOR GARDEN SEEDS TO GERMINATE.

	Days.		Days.
Bean.	5 to 10	Lettuce.	6 to 8
Beet.	7 to 10	Onion.	7 to 10
Cabbage.	5 to 10	Pea.	6 to 10
Carrot.	12 to 18	Parsnip.	10 to 20
Cauliflower.	5 to 10	Pepper.	9 to 14
Celery.	10 to 20	Radish.	3 to 6
Corn.	5 to 8	Salsify.	7 to 12
Cucumber.	6 to 10	Tomato.	6 to 12
Endive.	5 to 10	Turnip.	4 to 8

Have you enjoyed looking over the articles listed in this catalog? Do you like our methods and ideas as we are operating the seed business? Be sociable and write us occasionally. Tell us your troubles—perhaps we can help you.

BRUNS SELECT GLADIOLI

Gladiolus is the most satisfactory, attractive and beautiful of the summer flowering bulbs and the very best for cutting, as they keep in water for a number of days in good condition. Nothing makes a more beautiful garden display than gladiolus and you should start with good varieties as the bulbs increase from year to year. They thrive in almost any soil except a stiff clay, and when planted as soon as the ground is dry and warm and at intervals of two weeks through the spring and early summer they bloom from mid-summer until frost.

America. A very beautiful light soft pink, exquisitely tinted with lavender. Its very large flower of a beautiful waxy appearance has made it a favorite among the gladiolus lovers as it is one of the most satisfactory and free blooming kinds of the pinks. **Bulbs, 8c each, 6 for 40c, 12 for 70c, postpaid.**

Mrs. Francis King. The spikes of this flower are extra large and strong, of a brilliant pink color, marked with vermillion. A fine sort for decorative purposes, as they last long in water and a fine companion to the America. **Bulbs, 8c each, 6 for 40c, 12 for 70c postpaid.**

Chicago White. A fine white variety that shows some markings of lavender in the throat. A very free flowering kind and of large size. **Bulbs, 12c each, 6 for 65c, postpaid.**

Golden King. A canary-yellow in color and a free bloomer of good-sized flowers on a strong stalk. It is rather scarce and will be high in price for some time to come. **Bulbs, 12c each, 6 for 65c, postpaid.**

Halley. A beautiful salmon-pink and a very early variety. The well-formed flowers are blotched with white that give them a very pretty effect. **Bulbs, 10c each, 6 for 50c, 12 for 85c, postpaid.**

Shenandoah. Distinct from the other kinds as the flowers shoot out on two opposite sides of the stalk. Very large in size and a very rich deep pink. A comparatively new creation and we are fortunate to be able to offer them at all. By all means get a start of this new variety. **Bulbs, 20c each, 6 for \$1.00.**

BRUNS "GILT EDGE" MIXTURE GLADIOLUS

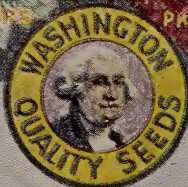
A mixture of the finest named varieties, many kinds that we do not have enough to list separately. In this collection you get an assortment that would cost considerably more if bought separately. They are the large flowering kinds and a collection of the richest coloring. Our price is low for the value we give. **Bulbs, 6 for 35c, 12 for 60c, 25 for \$1.00, postpaid. Quantities of this mixture, not prepaid, 40c per dozen.**



"GORGEOUS MIXTURE"
SWEET PEAS
PKT 10¢ 3PKTS 25¢

"AMERICAN BEAUTY" ASTOR COLLECTION
MIXED COLORS
PKT 15¢ 3PKTS 35¢

"BRILLIANT BEAMER"
NASTURTIUM MIXTURE
PKT 10¢ 3PKTS 25¢



"IMPROVED GOLDEN WAX BEANS"
PKT 10¢ 3PKTS 25¢

"GOLDEN BAY" SWEET CORN
PKT 10¢ 4 LB 15¢ 1 LB 40¢

"BRUNS EARLIEST"
MUSK MELON
PKT 10¢ 3PKTS 25¢

"BRUNS EARLY" BEET
PKT 10¢ 3PKTS 25¢

BRUNS SEED CO. WASHINGTON, IOWA.